A gift of
Associated
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for the
History of Medicine

A SUCCINCT

ACCOUNT

OF THE

PLAGUE

AT

MARSEILLES,

Its Symptoms, and the Methods and Medicines uſed for Curing it.

DRAWN UP

And preſented to the Governor and Magiſtrates of *Marſeilles*, by M. *Chicoyneau*, *Verney* and *Soullier*, the Phyſicians who were ſent thither from *Paris* by the Duke Regent of *France*, to preſcribe to the Sick in the Hoſpitals, and other Parts of that Town, during the Progreſs of that Calamity.

Tranſlated from the FRENCH *by a Phyſician.*

LONDON:

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THE *following Relation having been ſent to us by Meſſieurs* Chicoyneau, Verney *and* Soullier, *deputed by the Court for the Relief of our City afflicted with the Plague: We* Charles Claude de Andrault de LANGERON, *Knight and Commander of the Order of St.* John *of* Jeruſalem, *Chief Commander of the King's Galleys, Field Marſhal, and Marſhal of his Majeſty's Armies*, Commandant *in the City of* Marſeilles, *and the Territories thereof.*

Alphonſus de Fortia *Marquis de* PILLES, *Governing Magiſtrate, and* John-Baptiſte Eſtelle, John Baptiſte Audimar, John-Peter Mouſtier, *and* Balthazar Dieudé, *Sheriffs, Protectors and Defenders of the Privi-*

leges, Franchiſes and Liberties of this City, Counſellors of the King, and Lieutenants General of the Police, have thought fit to cauſe it to be printed; for having been Eye-witneſſes of the Zeal with which theſe Gentlemen have expoſed themſelves for the Service and Relief of our Sick, as well in the City as in the Hoſpitals, we are thoroughly perſuaded that their Obſervations on the Nature of this fatal Malady, and on the Remedies proper to its Cure, cannot but be very uſeful to the Inhabitants of divers Places of this Province that are unfortunately infected.

At Marſeilles *this* 26 *Nov.* 1720.

A SHORT

RELATION

OF THE

SYMPTOMS

OF THE

PLAGUE

AT

MARSELLIES,

Its PROGNOSTICKS and METHOD of CURE.

TO give ſome Satisfaction to the juſt Expectations of very many Perſons, as well of this Realm as of foreign Countries, who fearing the diſmal Effects of the Contagion, have done us the Honour

Honour to requeſt of us ſome Account of the Nature of the Diſtemper that has depopulated *Marſeilles*, and of the Succeſs of ſuch Remedies as we have employed againſt it; we have thought fit to draw up the following Relation, containing in ſhort what is moſt eſſential in this Affair, aud which may be ſufficient to intelligent Perſons of the Faculty, to direct their Conduct, and help them in framing a Judgment in the like Caſe, till we have better Means and a more convenient Leiſure to preſent to the Publick more exact Particulars of all that we have obſerved on this Subject.

All the Diſeaſed that we have ſeen or attended, in this terrible Diſtemper, commonly called the Plague, may be reduced to five principal Claſſes; which will take in generally all the Caſes that we have obſerved, except a few particular ones, which cannot be brought under any general Rule.

First Class.

The Firſt Claſs, obſerved eſpecially in the firſt Period, and in the greateſt Fury of the Diſtemper, contains ſuch as were afflicted with the Symptoms that we ſhall here ſet

ſet down, conſtantly followed by a ſpeedy Death.

THESE Symptoms were for the moſt part irregular Shiverings, the Pulſe low, ſoft, ſlow, quick, unequal, concentrated; a Heavineſs in the Head ſo conſiderable, that the ſick Perſon could ſcarce ſupport it, appearing to be ſeized with a Stupidity and Confuſion, like that of a drunken Perſon; the Sight fixed, dull, wandering, expreſſing Fearfulneſs and Deſpair; the Voice ſlow, interrupted, complaining; the Tongue almoſt always white, towards the end dry, reddiſh, black, rough; the Face pale, Lead-coloured, languiſhing, cadaverous; a frequent Sickneſs at the Stomach; mortal Inquietudes; a general ſinking and Faintneſs; Diſtraction of the Mind; doſing, an Inclination to vomit, Vomiting, *&c.*

THE Perſons thus ſeized, periſhed commonly in the Space of ſome Hours, of a Night, of a Day, or of two or three at fartheſt, as by Faintneſs or Extinction; ſometimes, but more rarely, in convulſive Motions, and a Sort of Trembling; no Eruption, Tumour or Spot appearing without.

It is eaſy to judge by theſe Accidents, that the Sick of this kind were not in a Condition to bear Bleeding; and even ſuch, on whom it was tried, died a little while after.

Emeticks and Catharticks were equally here uſeleſs, and often hurtful, in exhauſting the Patient's Strength, by their fatal overworking.

The Cordials and Sudorificks were the only Remedies to which we had recourſe, which nevertheleſs could be of no Service, or at the moſt prolong the laſt Moments but for a few Hours.

Second Class.

The ſecond Claſs of the Diſeaſed that we attended during the Courſe of this fatal Sickneſs, contains ſuch as at firſt had the Shiverings, as the preceding, and the ſame ſort of Stupidity, and heavy Pain in the Head; but the Shiverings were followed by a Pulſe quick, open, and bold, which nevertheleſs was loſt upon preſſing the Artery ever ſo little. Theſe Sick felt inwardly a burning Heat, whilſt the Heat without was moderate and

end temperate; the Thirſt was great and inextinguiſhable; the Tongue white, or of an obſcure red; the Voice haſty, ſtammering, impetuous; the Eyes reddiſh, fixed, ſparkling; the Colour of the Face was of a red ſufficiently freſh, and ſometimes inclining to livid; the Sickneſs at the Stomach was frequent, tho' much leſs than in thoſe of the preceding Claſs; the Reſpiration was frequent, laborious, or great and rare, without Coughing or Pain; Loathings; Vomitings, bilious, greeniſh, blackiſh, bloody; the Courſes of the Belly of the ſame Sort, but without any Tenſion or Pain; Ravings, or phrenetick Deliria; the Urine frequently natural, ſometimes troubled, blackiſh, whitiſh, or bloody; the Sweat, which ſeldom ſmelt badly, and which was far from giving Eaſe to the Sick, that it always weakned them; in certain Caſes Hemorrhages, which, however moderate, have been always fatal; a great Decay in the Strength, and above all, an Apprehenſion ſo ſtrong of dying, that theſe poor Creatures, were incapable of any Comfort, and looked on themſelves, from the firſt Moment of their being attacked, as deſtined to certain Death. But that which deſerves to be well obſerved, and which has always ſeemed to characteriſe and diſtinguiſh this Diſeaſe from all others, is, that almoſt all had

at the Beginning, or in the Progreſs of this Diſtemper, very painful Buboes, ſituated commonly below the Groin, ſometimes in the Groin or Arm-pits, or in the Parotide, Maxillar, or jugular Glands; as likewiſe Carbuncles, eſpecially on the Arms, Legs or Thighs, ſmall, white, livid, black Puſtles, diſperſed over all the Surface of the Body.

It was very rare to ſee any of the diſeaſed of this Second Claſs eſcape, though they ſupported themſelves a little longer than thoſe of the preceding; they periſhed almoſt all with the Marks of a gangren'd Inflammation, eſpecially in the Brain and Thorax; and that which was moſt ſingular is, that the ſtronger, fatter, fuller, and more vigorous they were, the leſs we had to hope.

As to the Remedies, they bore Bleeding no better than thoſe of the Firſt Claſs; at leaſt if they were not blooded at the very firſt Inſtant of their being taken Sick: It was evidently hurtful to 'em; they grew pale, and fell even in the time of their firſt Bleeding, or a little while after, into ſuch Faintings, as could not in moſt of them be imputed to any Fear, Repugnance, or Diſtruſt, ſince they demanded with Earneſtneſs to have a Vein opened.

All

All Emeticks, if we except *Ipecacuanha*, were very often more hurtful than uſeful; cauſing ſuch fatal Irritations and Exceſſes in operating, as we could neither moderate or ſtop.

The Catharticks that were a little ſtrong and active, were attended with the ſame Inconveniences.

Such as we preſcribed in the Form of a laxative Ptiſan, as well as plentiful Draughts, that were diluting, nitrous, cooling, and gently alexiterial, gave ſome Relief, but did not hinder the Return of the Symptoms.

All Cordials and Sudorificks, if they were not ſoft, gentle and benign, did nothing but promote the Progreſs of the inward Inflammations.

In ſhort, if any one eſcaped, which was very rare, he ſeem'd to owe his Cure to the external Eruptions, when they were very much raiſed; either ſolely by the Force of Nature, or by the Aſſiſtance of Remedies, as well internal as external, that determined the Blood to diſcharge on the Surface of the

Body, the noxious Ferment wherewith it was infected.

Third Class.

The Third Claſs contains the two preceding; ſeeing we have attended, during the Courſe of this terrible Sickneſs, a great Number of Perſons that have been attacked ſucceſſively with the different Symptoms enumerated in the two former Claſſes, in ſuch a manner, that the moſt part of the Signs deſcribed in the Second, were commonly the Forerunners of thoſe which we have mentioned in the Firſt; and the appearing of theſe latter Symptoms denounced an approaching Death.

In theſe ſorts of Caſes we varied our Method according to the diverſity of Indications, or of the moſt urgent Symptoms; ſo that without our being obliged to enter into farther Particulars, a Judgment may be formed of the Event of this Malady, and of the Succeſs of the Remedies, from what we before obſerved on the Subject of the diſeaſed of the two preceding Claſſes.

Be-

BEFORE we paſs on to the Fourth Claſs, we believe it will not be improper to obſerve, that a very great Number of different Kinds of diſeaſed Perſons contained in the preceding, had very moderate Symptoms, whoſe Force and Malignity appeared to be much leſs, than in thoſe of the ſame Accidents daily obſerved in inflammatory Fevers, or in the moſt common putrid ones, or in thoſe that are vulgarly called Malignant, if we except the Signs of Fear or Deſpair, which were Extream, or in the higheſt Degree; inſomuch, that of the great Number of infected Perſons who have periſhed, there were very few, who at the very firſt Moment of their being ſeized, did not imagine themſelves loſt without Relief, whatever Pains we took to encourage them: And though many amongſt them ſeemed to us, before the firſt Acceſs of the Diſtemper, to be of a firm and courageous Diſpoſition of Mind, and reſolute under all Events, yet as ſoon as they felt the firſt Strokes, it was eaſy to know by their Looks, and their Diſcourſes, that they were convinced that their Sickneſs was Incurable and Mortal, even at the Time when neither the Pulſe, nor the Tongue, nor the Diſorder in the Head, nor the Colour of the Face, nor the Diſpoſition of the Mind, nor laſtly, the

Leſion

Leſion of any of the other natural Functions mentioned above, gave any fatal Indication, or before there were any Grounds to be alarmed.

Fourth Class.

The fourth Claſs contains the Diſeaſed attacked with the ſame Symptoms with thoſe of the ſecond, but theſe ſorts of Accidents leſſened or diſappeared the ſecond or third Day of themſelves, or in Conſequence of the Effects of the internal Remedies, and at the ſame time in Proportion to the remarkable Eruption of the Buboes and Carbuncles in which the noxious Ferment that was diſperſed through the whole Maſs, ſeemed to be collected together; ſo that the Tumours riſing from Day to Day, at length being open, and coming to a Suppuration, the Infected eſcaped the Danger that threatned them, provided they had ſome Aſſiſtance.

These happy Events have determined us to redouble our Care during the whole Courſe of this Sickneſs, to accelerate, as much as the State of the Patient will admit, the Eruption, Elevation, Opening, and Suppuration of the Buboes and Carbuncles, in order to free, as ſoon as poſſible, by this way, the

Maſs

Maſs of Blood, from the fatal Ferment that corrupts it; aiding Nature by a good Regimen, and by ſuch cathartick, cordial, and ſudorifick Medicines, as are proper in the preſent Condition and Temperature of the Sick.

Fifth and Last Class.

This Fifth and Laſt Claſs contains all ſuch infected Perſons, as without perceiving any Emotion, or there appearing any Trouble or Leſion of their natural Function, have Buboes and Carbuncles, which riſe by little and little, and eaſily turn to Surpuration, becoming ſometimes ſcirrhous, or which is more rare, diſſipate inſenſibly, without leaving any bad Effect behind them; ſo that without any loſs of Strength, and without changing their manner of Living, theſe infected Perſons went about the Streets and publick Places, only uſing themſelves a ſimple Plaiſter, or asking of the Phyſicians and Surgeons ſuch Remedies as are neceſſary to theſe ſorts of ſuppurating or ſcirrhous Tumours.

THE Number of the infected contained in the two laſt Claſſes, were ſo conſiderable, that one may affirm, without any exaggeration, that more than fifteen or twenty Thouſand Perſons were found in theſe ſorts of Caſes; and if the Diſtemper had not often taken this turn, there would not have been left in this City the fourth Part of its Inhabitants.

WE may very well admit a Sixth Claſs of ſuch as we have ſeen periſh without any Forerunner, or other manifeſt Hurt, than only a decay in Strength; and who being asked concerning their Condition, anſwered, that they were not ſenſible of any Diſorder, which for the moſt part denoted a deſperate Caſe, and an approaching Death; but the Number of theſe were very ſmall in Compariſon of ſuch as made up the preceding Claſſes.

BESIDES all theſe Obſervations, it has happened that amongſt ſo great a Number of infected Perſons, we have ſeen many particular Caſes, wherein, contrary to our Expectation, and all the Appearance of Reaſon, the Sick have periſhed or recovered; but we are of Opinion that it would be uſeleſs to relate them here, and to give of them a long and

tedious

tedious Account; being moreover perſuaded that theſe Sorts of particular Events can ſerve as no ſure Rule to form a Prognoſtick, or how to proceed in the like Diſtemper. It is therefore more proper to keep to the Obſervations we have made, and that the rather, ſince they are found conformable to thoſe of our Collegues who have laboured in concert with us in this ſo painful and dangerous Work; and who have always profeſſed to relate what they have ſeen and obſerved themſelves, without ſuffering themſelves to be prejudiced by all the Reports that a vain Credulity, a popular Superſtition, the Boaſtings of Empericks, and the Greedineſs of making Profit by the publick Calamity, have ſpread through this City.

To conclude, the Medicines we have made uſe of are ſuch, whoſe Efficacy and manner of Operation, are generally acknowledged by a long Experience, to be adapted to ſatisfy all the Indications reported above; having moreover not neglected certain pretended Specificks, ſuch as the ſolar Powder, the mineral Kernes, Elixirs, and other alexiterial Preparations, as have been communicated to us by charitable and well-diſpoſed Perſons; but Experience itſelf has convinced us, that all theſe particular Remedies are at

the moſt uſeful only to remove ſome certain Accidents, when at the ſame time they are often noxious in a great many others, and by conſequence incapable to cure a Diſeaſe characteriſed by a Number of different eſſential Symptoms.

AN

ABSTRACT

OF THE

Different Methods that have been uſed towards the Infected, as they are included in the FIVE CLASSES *mentioned above.*

HAVING finiſh'd the preceding Relation the Tenth of *November*, and applying to the Magiſtrates to procure Writers to copy a ſufficient Number, to ſatisfie the Deſires of all the Perſons who have done us the Honour to conſult us on this Subject, thoſe Gentlemen replied, that by reaſon they could not get Tranſcribers enow, they would willingly take upon themſelves the Care of having it printed; ſo that we have accepted their Offer, being perſuaded that it is the ſhorteſt and moſt commodious Expedient to anſwer to all the Conſultations that we receive from all

Quarters on this Subject; but having reflected that this ſame Relation would be of no Uſe but to Perſons of the Faculty who are inſtructed and experienced in the Knowledge and Cure of Diſeaſes, we have thought proper to add here an Abſtract of the different Methods which we have made uſe of in treating the different Kinds of diſeaſed Perſons contained in the five Claſſes mentioned above; preſuming that they may be of Service to the young Phyſicians and Surgeons that are actually engaged in looking after infected Perſons in divers Places of this Province. And we are the more readily determined to give this ſmall Inſtruction to the Publick; ſince Monſ. LEBRET, firſt Preſident of the Parliament, and Intendant of this Province, a Gentleman zealous for its Preſervation, and very active in his Aſſiſtance in this time of Calamity, has done us the Honour frequently to ask of us an exact Account of the Treatment of this Malady.

The Method uſed in treating the Sick of the Firſt Claſs.

IF we afford but the leaſt Attention to the Nature of the Symptoms related in the firſt Claſs, that is to ſay, to the ſmall, unequal, and concentrated Pulſe; to the Shiverings;

ings; to the univerſal Chillineſs, eſpecially in the extreme Parts, and to the almoſt continual Sickneſs at the Stomach; to thoſe Lead-coloured, diſmal and cadaverous Faces; it will be very eaſy to judge, that we have nothing to do in this Caſe, but to preſcribe the moſt active and generous Cordials; ſuch as are *Venice* Treacle, Diaſcordium, the Extract of Juniper Berries, the *Lilium*; the Confection of Hyacinth, of Alkermes; the Elixirs drawn from Subſtances that abound the moſt in a volatile Salt; the Treacle Waters, thoſe of Juniper Berries of Carmes; the volatile Salts of Vipers, of Armoniack, of Hartshorn; the Balms the moſt ſpirituous; in one Word, all that is capable to animate, excite and ſtrengthen; augmenting, doubling, and even tripling their ordinary Doſe, according as the Caſe ſhall be more or leſs preſſing.

All theſe Remedies, and others of the ſame Nature, are without doubt very proper to animate and raiſe the almoſt extinguiſhed Strength of theſe poor ſick Perſons; nevertheleſs we have with Grief ſeen almoſt all of them periſh on a ſudden, which preſently confirmed us in the Opinion generally received, that the Malignity of the peſtilential Ferment is of a Force ſuperior to all Remedies; but as we have alſo ſeen them ſucceed

in

in ſome particular Caſes, there is Room to preſume, and one is but too much convinced of it by fatal Experience, that the Deſertion and Inactivity of the greateſt Part of the People who might have given Aſſiſtance, that the Want of Nouriſhment, of Remedies and Attendance, that the fatal Prejudice of being ſeized by an incurable Diſtemper, that the Deſpair of ſeeing ones ſelf abandoned without any Relief, one is, I ſay, well convinced that all theſe Cauſes have not leſs contributed than the Violence of the Diſeaſe, to the ſudden Deſtruction of ſo great a Number of the Sick, not only of this firſt Claſs, but alſo of the following; ſeeing that in Proportion as this mortal Fear of the Contagion is diminiſhed, and that one is mutually aſſiſted, that the Hopes and Courage of the People are returned; that, in one Word, the good Order is re-eſtabliſhed in this City by the Authority, Firmneſs and Vigilance of the Chevalier *de* LANGERON, by the great Care of the Governor, and by the conſtant and indefatigable Endeavours of the Sheriffs; one has beheld the Progreſs and Violence of this terrible *Scourge* to diminiſh inſenſibly, and we have been more ſucceſsful in curing the infected.

RETURNING then to the Method propoſed to treat the ſick Perſons of this Firſt Claſs, ſup-

ſuppoſing that by the Remedies mentioned, we were able to revive their dying Forces, and to diſengage them from the ſad Condition deſcribed above, it would remain to examine with Attention the new Changes and Accidents that would ariſe, which according to our Obſervations, may be reduced to ſome of thoſe we have related under the following Claſſes, and ought by conſequence to be treated by ſome of the Methods which we ſhall now deliver.

The Method uſed in treating the Sick of the Second Claſs.

THE Treatment of the Sick of this Second Claſs has much more employed us than the preceding, in reſpect to the Multiplicity and Variety of Accidents that offer at the ſame time ſeveral Indications to ſatisfy.

ALL theſe Indications, however, may be reduced to two principal ones, which demand the greater Attention and Prudence, ſince they are oppoſite; for we have obſerved in the ſame Patient a ſtrange mixture of Tenſion and Relaxation, of Shivering and Heat, of Agitation and Sinking; inſomuch, that we were obliged conſtantly to endeavour at the expulſion of the noxious Ferments

ments lodged in the *primæ Viæ*, or diſperſed through the whole Maſs of Blood, without exaſperating them at the ſame time; or to correct and leſſen their Action, without weakening the Patient. We ought, for Example, to vomit or purge without irritating or exhauſting; to procure a free Perſpiration or Sweating, without too much animating or inflaming; to fortify without augmenting the Heat contrary to Nature; laſtly, to dilute and temperate without overcharging or relaxing. And this is what we have endeavoured to execute by the following Method.

SUPPOSE that we were called at the Beginning, and before the Patient was exhauſted, we ſhould order immediately a Medicine proper to cleanſe the Stomach, that is to ſay, a gentle Vomit, ſuch as is the *Ipecacuanha*, in a Doſe proportioned to the Age and Temperature of the ſick Perſon, to be taken in a little Broth or common Water; we have ſeldom uſed the Emetick Tartar or *Vinum Benedictum*, for fear of too great Irritations, unleſs we had to do with very robuſt and plethorick Bodies, or that ſome particular Accident ſeemed to demand them; we promoted the Operation of the Medicine by a large quantity of warm Water, or of *Tea*, or a Decoction of *Carduus Benedictus*.

THE

THE Effect of this first Medicine being commonly a lessening of the Strength, we endeavoured to fortify, by some gentle Cordial, especially by *Venice* Treacle and Diascordium, by reason they are proper to prevent or stop an over-working of the Vomit.

TO these two Remedies succeed moderate and diluting Catharticks, to cleanse away without irritating the Load of gross Humours which may hinder the Action of the other Medicines, or prevent their free Passage into the Vessels: These Purges are laxative Ptisans, made with Sena and Crystal Mineral, ordered in Phials; the Decoction of Tamarinds, or vulnary Infusions, wherein are dissolved Manna and Sal Prunel; the Diluta-Cassiæ; Syrupus de Chichoreo cum Rhab.; to which then succeed the Cordials and gentle Alexipharmacks, for the Reasons given above; that is to say, to fortify, and to stop the Over-purgings, which would infallibly cause some fatal Weakness: And supposing that the *Venice* Treacle and Diascordium were insufficient to answer this last Indication, we would add sealed Earth, Coral, Bole-Armoniack, which we would render still more efficacious in Cases of Necessity, by

the mixture of ſome Drops of liquid Laudanum, which has been of ſervice in many Caſes, not only in ſtopping the immoderate Evacuations, but even in the want of Sleep, phrenetick Deliria, Hemorrhages, and other Symptoms of the ſame ſort.

THE Solar Powder of *Hamburgh*, the Mineral Kermes, and other Remedies that have been communicated to us with great Commendations, have been alſo uſed, both as Emeticks and Catharticks; and have ſometimes with ſucceſs, anſwered both thoſe Indications: And at the ſame time, in ſome certain Caſes, we obſerved they promoted Sweat and Perſpiration; but as we have already remarked, they have always ſeemed to us inſufficient to perform the Work of a radical Cure, in a Diſtemper characteriſed by divers eſſential Symptoms.

FOR what relates to Sudorificks, as ſoon as we perceive the leaſt Diſpoſition to a free Tranſpiration or Sweating, in what time ſoever of the Sickneſs it happens, we have taken care to make uſe of them, and that the rather, by reaſon ſome infected Perſons have eſcaped by this Method: Nor are we ignorant how this ſort of Criſis is recommended as very Salutary by all the Authors

that

that have wrote of the Plague: We have had therefore Recourſe to ſome of the Cordials mentioned above, and particularly the *Venice* Treacle and Diaſcordium; to which may be added the Powder of Vipers, Diaphoretick Antimony, Oriental Saffron, Camphire, *&c.* promoting the Effect of theſe Medicines by the repeated Draughts of Tea, the vulnerary Infuſions of *Switzerland*, the Waters of Scabious, *Carduus Benedictus*, Juniper Berries, of Scordium, Rue, Angelica, and others, recommended for puſhing from the Center to the Circumference; that is to ſay, to depurate the Maſs of Humours by the way of inſenſible Perſpiration without too much Emotion; obſerving always, that the Patients are not of a too dry and hot Conſtitution, or that in forwarding too much this Sort of Criſis, they do not fall into ſome fatal Weakneſs.

The great Heats and intolerable Thirſt are allayed by a plentiful and repeated drinking of Water, wherein Bread has been macerated, Ptiſan of Barley, of Rice, Chicken-Broth, diſſolving therein Sal Prunel, or purified Nitre, mixing by intervals a few Drops of Spirit of Sulphur, or of Nitre dulcified, or of Vitriol; as alſo the Confections of Alkermes, Syrup of Lemons, *de Ovo*, or

any other gentle Cordial, to prevent an Overcharge and Relaxation.

All these Remedies properly made use of, and managed with Prudence, are sufficient to satisfy the divers Indications of this second Class, provided the terrible Prejudice of the Impossibility of a Cure, the Consternation, and the Despair, do not suspend their Action: And we could, if the Time would permit, give several Instances of such, as being supported by their Hopes, Courage, and Firmness, have experienced the good and wholsome Effects thereof: So that Nature being thereby strengthened, comforted, and freed in part, of the noxious Ferment that oppressed her; and above all, being delivered from the Danger of the internal Inflammations, by the means of the external Eruptions, I mean the Carbuncles, Buboes, Parotides, *&c.* there remains nothing to be done, but to treat methodically these sorts of Tumours, to which we have particularly applied our selves from the beginning of the Distemper to the end; and that with the greater Diligence, by reason, as we have already remarked, the Destiny of the Patient depended almost always on the Success of these sorts of Eruptions, the manner of treating which, we

shall

ſhall give by and by, according their ſeveral Varieties.

The Method uſed in treating the Sick of the THIRD CLASS.

IT would be altogether needleſs to enter into the particulars of the Method we uſed in treating the Patients of this third Claſs, ſince the Symptoms they were attack'd with, were the ſame with thoſe which we have mention'd in the two preceeding Claſſes; ſo that they ſucceeded mutually each other, and the Symptoms related in the ſecond Claſs, were the Forerunners of thoſe deſcribed in the firſt; whence it is eaſy to judge that we have here nothing to do but to uſe ſucceſſively the Medicines mentioned before. The Obſervation that we thought fit to inſert between the third and fourth Claſs, and in which it is ſhown, that ſeveral infected Perſons periſhed in a very ſhort Time with Symptoms very moderate, or much leſs violent than what we generally obſerve the ſame Symptoms to be in malignant or common putrid Fevers. This Obſervation, I ſay, may inſtruct us, that this Sort of infected Perſons in whom often there only appear a ſmall Weakneſs, and a very great Conſternation, demands as much Care as thoſe in whom the Sym-

ptoms are more conſiderable, and on the leaſt Appearance of their being ſeized, there ought immediately to be uſed, beſides generous Remedies, every Thing that is proper to ſuſtain their Strength and encourage them.

The Method of treating the Sick of the FOURTH CLASS.

WE have nothing here to do, but to caſt our Eyes back, on what we have ſaid above, relating to the Accidents that characteriſe and terminate the Plague, in order to judge that this Method ſhould principally turn on the Manner of treating the Buboes or Carbuncles. The Symptoms, it is true, that appear at the Beginning in the Diſeaſed of this Claſs, are nearly the ſame with thoſe that ſhow themſelves in the ſick Perſons of the ſecond Claſs; ſo we immediately employ'd the Remedies proper to oppoſe them, ſuch as are the gentle Emeticks, the diluting Catharticks and Sudorificks of the ſame ſort, according to the Indications that ariſe, obſerving however a very exact Regimen. But the Deſtiny of the Infected, depending principally, as we have remarked already, on the large Emption, and laudable Suppuration of the Buboes and Carbuncles, theſe Sorts of Tumours have been always the Objects of

our

our chief Care and Attention. And ſince theſe Tumours have conſtantly appeared in the Sick of this fourth Claſs, and in thoſe of the preceeding, the Method which we are going to propoſe for their Management, ought to be conſider'd, as common to all the Claſſes.

The Method uſed in the Treatment of Buboes.

THESE Tumours were ordinarily ſituated in the Groin, and often below it, chiefly ſwelling the lymphatick Glands, placed near the crural Veſſels; they appeared alſo pretty frequently under the Arm-pits, particularly under the pectoral Muſcle, as alſo in the Glands behind and below the Ears, in the Jugular, and under the Chin.

THE Buboes with which the Sick of the former Claſſes were attack'd, often appeared at the Beginning of the Diſtemper, chiefly in the Groin and Arm-pits, ſmall at firſt, deep and exceeding painful, that one could ſcarce touch or handle them, without cauſing a very uneaſy Senſation; theſe for the moſt Part made no other Alteration in the Skin, but by ſwelling it, as they grew bigger, towards the End they became indolent.

IN

IN what Time ſoever of the Diſtemper theſe Sorts of Tumours appeared, we attacked them without any Delay, unleſs there was Reaſon to preſume from other Symptoms that the ſick Perſon was at the Point of Death.

IF the Tumour was ſmall, deep, painful, and one had Time to endeavour to mollify it, we began with the Application of emollient and anodyne Cataplaſms, and as the Miſery and Deſertion would not ſuffer us to have Recourſe to choice Drogues, we prepared on the Spot, and applied warm, a Sort of Pultice compoſed of Crums of Bread, common Water, Oil of Olives, Yolk of an Egg, or a large Onion roaſted in the Aſhes, which we firſt hollowed, and filled with Treacle, Soap, Oil of Scorpions or of Olives; uſing moreover, for Perſons of Condition, Cataplaſms made with Milk, the Crummy Part of Bread, Yolks of Eggs; or with the Mucilage of emollient Herbs and Roots.

BUT as the Diſeaſed of the firſt Claſſes periſh often very ſuddenly, even at the Time when we apprehend ſuch an Accident the leaſt, we think it not adviſeable in this Caſe to preſcribe ſuch Sort of Applications; but

we

we ought immediately to prevent the laſt Danger, by endeavouring at the opening of the Tumour, and to that End we cauſed to be applied without Delay, all over the Part a Dreſſing with the cauſtick Stone, leaving it there for ſome Hours, more or leſs, according to the Depth, Situation, Bulk of the Parts, and the Conſtitution fat or lean of the Patient; the Eſcarr being made, it muſt be opened by Inciſion, without any Delay, in order to examine the tumified Glands, to diſſolve which, there ought to be apply'd Digeſtives, after they have been a little ſcarified; or they ſhould be extirpated if they are moveable, and can be removed without an Hemorrhage, which according to our Obſervations has been always fatal tho' but moderate. And for this Reaſon we have thought fit to reject the Method of extirpating theſe Tumours, which was made uſe of before we came to this City. The Way of opening them immediately by a Lancet, altho' more ready than that by Cauteries, appears to us in many Caſes inſufficient, and leſs ſure, as giving but little Light to view the Part, and leaving very often after it, Abſceſſes, Fiſtula's or Scirrhous Tumours. As to Cupping, Glaſſes and Bliſters, their Effects ſeem to us ſlow, uſeleſs, and that of the Latter ſometimes dangerous; in

certain Subjects their Application has been followed by internal Inflamations, especially in the Bladder.

RETURNING then to our Caustick Stone, the Escarr being formed, and the Incisions made with the Precaution of discovering the tumified Glands, in their whole extent, that no bad Reliques be left behind; the next Thing is to dissolve the Glands by the means of good Digestives, which may be made of equal Parts of Balsom of *Arcæus*, Ointment of Marsh-Mallows, of Basilicon, adding thereto Turpentine and Oil of St. *John*'s Wort, which ought to be well mixed, and if there is any remarkable Corruption in the Part, there ought to be joyned with the Turpentine and Oil of St. *John*'s Wort, the Tinctures of Myrrh, of Aloes, Spirit of Wine camphorated and Sal Armoniack; lastly deterging and cleansing away the Pus and *Sanies*, whilst it is thick and too corrosive, with Lotions made of Barley Water, Honey of Roses, Camphire; or with vulneraine Decoctions of Scordium, Wormwood, Centaury the less, and Birthwort. And when the Ulcer has been well deterged, and the tumified Glands entirely consumed by Suppuration, there remains nothing but to apply a simple Plaister to bring the Wound to a Cicatrice.

WE

We ſhall now give in few Words, the Method we uſed in the Cure of Carbuncles, which in many Circumſtances have a near Relation to the preceeding.

The Method uſed in the treating Carbuncles.

We have obſerved theſe ſort of Tumours during the whole Courſe of the Sickneſs, in a very great number of diſeaſed Perſons in all the Claſſes, though leſs frequent than the Buboes; remarking alſo very often in the ſame Subjects, theſe two ſorts of Emptions.

The Carbuncles preſent themſelves in different Places on the Surface of the Body, eſpecially in the Thighs, Legs, Arms, Breaſt, Back, but very rarely in the Face, Neck, or Belly.

They appear at firſt under the Form of a Puſtle or Tumour, which is whitiſh, yellowiſh, or reddiſh, Pale in its middle, or inclining to an obſcure Red, which becomes inſenſibly blackiſh, cruſtaceous, eſpecially about the Edges; as alſo variegated with divers Colours; ſo that, according to that which is predominant, and the Exceſs or

Defect of Senſibility and Elevation, we may give it the Name of a Phlegmonick, Eryſipelatous, or gangrened Carbuncle.

We immediately attack all theſe ſorts of Carbuncles by Scarification, making the Inciſion to the Right and to the Left, in the Middle, and on the Edges, to the Quick; and if the Eſcarr is Thick and Callous, we take away all the Thickneſs, and what is Callous, as much as the Situation of the Parts will permit.

We have not thought proper to uſe here the actual or potential Cauteries which are employed in our Province, in the caſe of common Carbuncles, becauſe, having made Trial of them at the Beginning, we obſerved that they cauſed Inflammations ſo conſiderable, that a Gangrene preſently enſued, and its Edges became Callous again: The Cauſtick Stone ſucceeded not but in ſmall Carbuncles, which heal of themſelves, almoſt without any Help.

After having ſcarified theſe Tumours, we applied Pledgets with good Digeſtives, as in the Caſe of Buboes, only with this Difference, that we have left out the ſuppurating Ingredients, uſing only the Treacle,

Treacle, Balſam of *Arcæus*, and Oil of Turpentine; and if there is much Corruption, we add the Tinctures of Aloes, of Myrrh and Camphire, *&c.*

We put over the Pledgets, emollient and anodine, or ſpirituous and diſſolving Cataplaſms, as over the Buboes, according to the diverſity of Indications. In the Courſe of the Dreſſings, the Lotions and Injections are alſo employed the ſame as for the Buboes, according to the Exigence of the Caſe. And, if in the Proceſs of Suppuration, the new Fleſh be ſo ſenſible, that the Digeſtives applied cauſe a very great Pain, as we have ſeen it often happen, then we ſubſtitute in their room Pledgets with Unguentum Nutritum, with very good Succeſs.

The Method relating to the Sick of the Fifth Class.

We believe it will be uſeleſs to give every particular of the Method that has been followed, and which is ſtill actually uſed in the Cure of the diſeaſed of the Fifth Claſs, wherewith the Hoſpitals are filled; becauſe they being afflicted with no other Symptom beſides the Buboes and Carbuncles ill looked after, or neglected,

and

and by conſequence, nothing here offers it ſelf but the Abſceſſes, Ulcers, Fiſtula's, Scirrhus's, and Callus's, which Negligence, or an ill Treatment have left behind them; ſo that there is here nothing farther required, but to put in Uſe the Method laid down above, or to employ the Means practiſed in the like Caſes, according to the Rules of Art.

We ſhall remark, in concluding, that all the Methods we have here propoſed, are not ſo general, or conſtant, as to be without Exceptions, in reſpect to certain particular Caſes, which have fallen under our Obſervation during this terrible Sickneſs, and which may funiſh Materials for a more exact Account. But what we have already delivered may be ſufficient to inſtruct the young Phyſicians and Surgeons, that are employed in attending Infected Perſons; and at the ſame time, to let the Publick know what Opinion ought to be had of all thoſe ſingular Methods, and of thoſe pretended Specificks ſo cried up by the Populace, and by the Empericks.

FINIS.

THE PLAGUE AT *MARSEILLES* CONSIDER'D:

With REMARKS upon the PLAGUE in General, ſhewing its Cauſe and Nature of INFECTION, with neceſſary Precautions to prevent the ſpreading of that DIREFUL DISTEMPER. Publiſh'd for the PRESERVATION of the People of GREAT-BRITAIN.

Alſo ſome Obſervations taken from an Original Manuſcript of a Graduate Phyſician, who reſided in LONDON during the whole Time of the late Plague, *Anno* 1665.

By RICHARD BRADLEY, F. R. S.

The THIRD EDITION.

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Price 1*s*.

TO

Sir ISAAC NEWTON

Preſident of the Royal Society, &c.

SIR,

TO Act under Your Influence, is to do Good, and to Study the Laws of Nature, is the Obligation I owe to the Royal Society, who have ſo wiſely placed Sir *Iſaac Newton* at their Head.

DEDICATION.

The following Piece, therefore, as I design it for the Publick Good, naturally claims *Your* Patronage, and, as it depends chiefly upon Rules in Nature, I am doubly obliged to offer it to the President of that Learned Assembly, whose Institution was for the Improvement of Natural Knowledge.

I am, Sir

With due Respect,

Your most obliged,

Humble Servant,

R. BRADLEY.

PREFACE.

THERE would be little Occaſion for a Preface to this Treatiſe, if the laſt Foreign Advices had not given us ſomething particular relating to the Peſtilence that now rages in the South Parts of France ; *and what may more particularly recommend theſe Relations to the World, is, becauſe they come from Phyſicians, who reſided at the Infected Places.*

The

The Physician at *Aix* gives us the following Account.

The Contagious Distemper, which has become the Reproach of our Faculty here for above a Month past, is more violent than that at Marseilles; *it breaks out in Carbuncles, Buboes, livid Blisters, and purple Spots; the first Symptoms are grievous Pains in the Head, Consternations, wild Looks, a trembling Voice, a cadaverous Face, a Coldness in all the extreme Parts, a low unequal Pulse, great Pains in the Stomach, Reachings to Vomit, and these are follow'd by Sleepiness, Deliriums, Convulsions, or Fluxes of Blood, the Forerunners of sudden Death. In the*

the Bodies that are open'd, we find gangrenous Inflammations in all the lower Parts of the Belly, Breaſt and Neck. Above fifty Perſons have died every Day for three Weeks paſt in the Town and Hoſpitals. Moſt of them fall into a dreadful Phrenzy, ſo that we are forc'd to tie them.

The other is a Letter from a Phyſician at Marſeilles, *ſent to* John Wheake, *Eſq; who was ſo kind to give me the Abſtract.*

Marſeilles *Sept.* 15. 1720.

Sir,

I Arriv'd here the 8*th*, and enter'd the Gate of *Aix* which leads to the *Cours*, which has always been eſteem'd one of the moſt

moſt pleaſant Proſpects in the Kingdom, but that Day was a very diſmal Spectacle to me; all that great Place, both on the Right and Left, was fill'd with Dead, Sick, and Dying Perſons. The Carts were continually employ'd in going and returning to carry away the Dead Carcaſſes, of which there were that Day above four Thouſand. The Town was without Bread, without Wine, without Meat, without Medicines, and in general, without any Succours.

The Father abandon'd the Child, and the Son the Father; the Husband the Wife, and the Wife the Husband; and thoſe who had not a Houſe to themſelves,

ɛlves, lay upon Quilts in the Streets and the Pavements; all the Streets were fill'd with Cloaths and Houſhold-Goods, ſtrew'd with Dead Dogs and Cats, which made an inſupportable Stench. Meat was Sold at 18 to 20 *Sous* per Pound, and was only diſtributed to thoſe that had Billets from the Conſuls: This, Sir, was the miſerable State of this City at that Time, but at preſent, Things have a better appearance; Monſieur *le Marquis de Langeron*, who Commands here, has cauſed the Dead to be Buried, the Cloaths and Goods to be burnt, and the Shops to be open'd, for the Suſtenance of the Publick.

Two Hoſpitals are prepar'd where they carry all the Sick of the Town, good Orders are daily re-eſtabliſh'd, and the Obligation is chiefly owing to Monſieur *de Langeron*, who does Wonders. However, there is not any Divine Service Celebrated, nor are there any Confeſſors. The People die, and are buried without any Ceremonies of the Church; But the Biſhop, with an undaunted Courage, goes thro' the Streets, and into Publick Places, accompanied with a Jeſuit and one Eccleſiaſtick, to Exhort the Dying, and to give them Abſolution; and he diſtributes his Charity very largely. The Religious Order have almoſt all periſh'd, and the

the Fathers of the Oratory are not exempt; it is accounted, that there have died 50000 Persons. One thing very particular is, that Monsieur *Moustier*, one of the Consuls of the City, who has been continually on Horseback ordering the Slaves who carried away the Dead in Carts, or those that were Sick, to the Hospitals, enjoys his Health as well as he did the first Day he began; the Sickness seems at present to abate, and we have the Satisfaction to see several whom we took under our Care at the Beginning of the Sickness, promise fair towards a Recovery. The Sickness however, is of a very extraordinary Nature, and

the Obſervations we have in our Authors, have ſcarce any Agreement with what we find in this: It is the Aſſiſtance of Heaven we ought to implore, and to wait for a Bleſſing from thence upon our Labours.

I am, &c.

We may obſerve, that the Contagion now ſpreading it ſelf in Foreign Parts, has nearly the ſame Symptoms that were obſerv'd in the late Plague at London; *ſo that what Medicines were then uſed with good Succeſs, may direct not only the People of* England *in the way of Practice, if* God Almighty *ſhould pleaſe to afflict us with*

with that dreadful Diſtemper, but be ſerviceable likewiſe to the Infected Places abroad. There is room enough to hope, the approaching Cold, which we naturally expect at this Seaſon, may prevent its ſpreading amongſt us for ſome Months, 'till the Air begins to warm, but the Seeds of that Venom may be brought over in Merchandizes even in the coldeſt Months, and according to the Nature of Inſects will not hatch, or appear to our Prejudice, 'till the hotter Seaſons. For to ſuppoſe this Malignant Diſtemper is occaſion'd by Vapours only ariſing from the Earth, is to lay aſide our Reaſon, as I think I have already ſhewn in my New Improvements of Planting, *&c. to which my Reader may refer.*

I suppose there may be such Persons in the World who do not agree with the Hypothesis I have laid down in the following Sheets, altho' many Learned Authors have supported it; and again, I expect others to Except against the Concise way I have taken, in writing upon a Subject, which at this time ought to be set in the plainest Light; but as I found the Danger of Pestilence spreading it self more and more every Day, a true Lover of his Country could not be easie without giving the Publick some Hints to prevent its dismal Effects, and at the same time to engage the Learned to write upon such an Occasion.

And it is with Pleasure I observe, that since the former Editi-

ons

ons of this ſmall Tract has been made publick, our Learned Phyſicians are diſpos'd to conſider the neceſſary Means to prevent (as far as in them lies) the ſpreading of this Calamity, and juſtly deſerve the favour of the Publick.

For my own part, I can only ſay, that the ſhort time I had to put this Work together, would not allow me to give it with that exactneſs, that I would have done, if I could have had more Leiſure.

THE

THE PLAGUE AT *MARSEILLES* CONSIDER'D, &c.

THE Deplorable Condition of the *Marſeillians*, and the Danger that all the Trading Parts of *Europe* are now in, of being Infected by the Plague which rages in the *South* Parts of *France*, and every Day ſpreads it ſelf more and more over the Neighbouring Countries, gives me occaſion to Publiſh ſome Papers which would never have otherwiſe appeared in the World.

When I conſider the melancholy Circumſtances of the People at *Marſeilles* and other infected

Places, how they are now diveſted of Relief, and brought into that miſerable State, that even every Man is terrified at the Approach of his deareſt Friend, and the very Aſpect of our Neighbours ſtrike ſuch Horror and Confuſion in us, as if they brought our Death and Deſtruction with them; it is then ſurely time for every one to contribute all that in him lies to prevent the Progreſs of ſo *direful a Calamity*.

The good Counſels of our Nation, therefore, to prevent as much as poſſible the Infection which might be brought among us by Merchandizes coming from Infected Places, have wiſely orde-der'd ſtrict Quarentine to be perform'd, before either the Sailors or Goods can be brought aſhoar.

The Neighbouring Nations of Trade, have follow'd our Example, but the *Hollanders* in an extraordinary manner, have even order'd the Burning the very Ships and Goods coming from *Marſeilles*, and have been ſo cautious, as to ſuffer none of the Paſſengers to come on Shoar, without firſt being diſ-rob'd of all their Apparel, and even to be well waſh'd with Sea Water, and then likewiſe to perform Quarentine in a little Iſland, remote from the Inhabitants. I could mention many Relations we have had, of the Sufferings of the poor People belonging to *Marſeilles*, who to avoid the diſmal Conſequence of the Plague, have flown for Refuge into the Country, and have either been ſtarv'd to Death, or Murder'd by the Country People; but yet we find, that notwithſtanding all theſe Precautions,

that

that Peſtilence continues to deſtroy as much as ever, and makes it Advances every Day more towards us.

It is computed, that about 60000 are Dead of the Plague at *Marſeilles*, and that there are now (*October* 20. *N. S.*) above 14000, Perſons left in that Town, including 10000 Sick; and at *Aubagne*, out of 10000 who retir'd thither from *Marſeilles*, above 9000 are Dead.

On this ſad Occaſion of the Ruin of *Marſeilles* eſpecially ſince there is talk of Burning that Town, it may not be unſeaſonable to give an Account of it.

'*Marſeilles* is one of the moſt conſiderable Ci-
'ties in *France*, and the moſt Populous and moſt
'trading Town of all *Provance*. It is ſo Anti-
'ent, that it is reckon'd to have been Built up-
'wards of Six Hundred and Thirty Years before
'the Birth of our Saviour. It was once a very
'flouriſhing Republick; and its Univerſity was
'in ſuch Eſteem, as drew Students thither from
'all Parts of *Europe*.

'*Marſeilles* is ſituate at the Foot of a Hill,
'which riſes in the Form of an Amphitheatre
'in proportion to its Diſtance from the Sea. The
'Harbour is Oval, and bounded by a Key about
'fourteen hundred Paces long, upon which ſtand
'the handſomeſt Houſes in the Town. It affords
'a very delightful Walk, Part whereof is taken
'up in the Day time by the working Gally-Slaves
'Stalls, where you may furniſh your ſelf with

'Cloaths

' Cloaths and other Neceſſaries; the Entrance of
' the Harbour is ſhut up by a Chain ſupported at
' certain Diſtances by three Stone-Pillars; ſo
' that only one large Ship can paſs at a time,
' tho' the Haven will contain about Five hundred.
' And hither are brought all ſorts of Commodi-
' ties from all Parts of the known World.

' The Cathedral Church, call'd *Notre Dame*
' *la Majeure*, whereof S. *Lazarus* is Patron, is
' very Solemn. It was formerly a Temple dedi-
' cated to *Venus*, or to *Diana* of *Epheſus*. Its
' Form is Irregular; but it was not thought pro-
' per to add or diminiſh any thing. There re-
' main ſeveral large Columns, on which ſtood
' the Idol. The Treaſure of this Church is very
' Rich. Here you ſee the Head of S. *Lazarus*,
' that of S. *Connat*, a Foot of S. *Victor*, and
' many other Relicks. Near the Cathedral, is a
' Chappel built upon the Spot where (the *Mar-*
' *ſeillians* tell you) S. *Mary Magdalen* preached
' the Goſpel to the Idolaters, as they came out
' of the Temple.

' *Notre Dame des Acoules* is alſo a fine large
' Church, which was formerly a Temple ſacred
' to the Goddeſs *Pallas*. In that of S. *Martin*,
' which is Collegiate and Parochial, is preſerv'd
' a Silver Image of the bleſſed Virgin, five Foot
' and half high, the Crown and Ornaments where-
' of are very rich. The Church of S. *Saviour*,
' now belonging to a Nunnery, was anciently
' a Temple of *Apollo*. All theſe Places are ſo
' many Proofs of the Antiquity of *Marſeilles*,

' as

' as well as two other Temples near the Port,
' with two Towers, *viz.* that of S. *John*, which
' is a Commandry of the Knights of *Malta*, and
' that of S. *Nicolas*.

' The Abby of S. *Victor*, of the Order of
' S. *Benedict*, is ſituate at the Foot of the Citadel.
' It reſembles a Caſtle, being encompaſs'd with
' Walls, and ſet off with Towers. At the Front
' of the Church are theſe Words addreſs'd to S.
' *Victor*,

Maſſiliam verè Victor civeſque tuere.

' In a Chappel on one ſide of the Epiſtle, you
' ſee the Head of that Saint, in a Shrine of Silver
' guilt, finely wrought, which was given by Pope
' *Urban*, V. whoſe Tomb is on one ſide of the
' Choir; there are many other Relicks in this
' Church. You then deſcend a large Stair-Caſe
' into the Church under Ground, where the Chap-
' pels viſited by the Curious, are full of Holy
' Bodies. There they ſhew you the Tomb of S.
' *Euſebius*, and thoſe of forty five Virgins who
' disfigur'd themſelves to terrifie the Vandals who
' put them to Death. Here alſo you ſee St. *An-
' drew*'s Croſs entire, the Branches whereof are
' ſeven Foot long and eight Inches Diameter.
' In one of theſe ſubterraneous Chappels is a
' little Grotto, wherein S. *Mary Magdalen* (they
' tell you,) upon her Landing at *Marſeilles* be-
' gan to do Pennance. They add, that ſhe Inha-
' bited it ſix or Seven Years: Her Statue like-
' wiſe is repreſented, lying at the entrance of

' this

this Grotto. There is alſo a rich Chappel of our Lady, wherein no Women are permitted to enter. This Order was made, upon the Vulgar Notion, of a Queen's being ſtruck Blind, who had the Temerity to venture into it.

'In *Marſeilles* you obſerve likewiſe the Monaſteries and Churches of the *Carthuſians*, the Monks of St. *Anthony*, the *Trinitarians*, *Jacobins*, *Auguſtins*, Barefooted *Auguſtins*, *Carmelites*, Barefooted *Carmelites*, *Cordeliers*, *Obſervantins*, *Servites*, *Minims*, *Capuchins*, *Recollects*, *de la Mercy*, *Feuillans*, *Jeſuites*, Fathers of the *Oratory*, and of the *Miſſion*. There are alſo *Benedictine* Nuns, *Dominicans*, Nuns of S. *Clare*, *Capuchins*, *Carmelites*, *Bernardines*, *Urſelins*, Nuns of the Viſitation of Mercy, and of the good Shepherd or Repentance; and a Commandry of *Malta*.

'The Citadel of *Marſeilles* is near the Port, extending its Fortifications to the Entrance of the ſame; and yet it commands the Town. The Key which lines this ſide of the Harbour, from Fort S. *Nicolas* to the Arſenal, is about fifteen hundred Paces long, and is adorned with handſome Ware-Houſes and Dwelling-Houſes: Here is the great Hoſpital for Sick Slaves, which was formerly the Arſenal before the New one was built. Six large Pavilions, as many main Houſes, and a great ſquare Place big enough to build ſeveral Galleys at a time in, form the Deſign of it. In this Place are two large Baſons, as long and as deep as a Galley,

'in

' in each of which, when a Galley is ready to ' launch, they open a ſmall Sluice which kept ' up the Sea Water.

' This great Building makes one entire Front of ' the Port, three hundred Paces in Length; the Har- ' bour of *Marſeilles*, is thirteen hundred Paces long, ' and the Circumference about three Thouſand ' four hundred and fifty Paces. The Streets of ' the old Town are long, but narrow; and thoſe ' of the New are ſpacious, and well Built. The ' chief, is that they call *le Cours*, which is near ' forty Paces broad, in the middle of which is a ' Walk, planted with four Rows of young Elms, ' which, with the Keys, are the Places of publick ' Reſort.

' The Town-Houſe which they call *La Loge*, ' is ſituate upon the Key over againſt the Gal- ' leys. Below is a large Hall, which ſerves the ' Merchants and Sea-faring Men for an Exchange; ' and above Stairs the Conſuls, Town-Councel- ' lors, and others concerned in the Civil Admini- ' ſtration have their Meeting. The moſt valu- ' able Piece in this Building, is the City Arms ' in the Front, Carved by the famous *Puget*.

' *Marſeilles* ſeems ſtill to retain ſomewhat of ' the ancient Government, of its four Courts, ' being divided into four Quarters, viz. S. *John*, ' *Cavaillon*, *Corps de ville* and *Blancaire*; each ' of which hath its Governors and other Officers. ' The *Porte Royalle* is well Adorned, having on ' one ſide the Figure of S. *Lazarus*, and on the ' other, that of S. *Victor*. And in the middle is

' a

'a Buſto of *Lewis* XIV. with this Inſcription 'over it, *Sub cujus imperio ſumma libertas.*

'The Town is encompaſs'd by good Walls, 'and a Tetragon which commands a Part of it, 'is the beſt of the two Citadels, and within Can-'non Shot of a Fort call'd *Notre Dame de la* 'Garde, whither the Inhabitants frequently go to 'pay their private Devotion, and from whence 'they diſcover Ships at Sea at a great Diſtance. 'This Fort is built on the top of a Mountain, 'upon the Ruins of an ancient Temple of *Venus*, 'called *Epheſium.*

The Country about this City is low and open for two Miles, agreeably adorn'd with Villas, Vineyards, and Gardens of Fig-Trees, and Orange-Trees, with plenty of Water from a good Spring, which being divided into ſeveral Branches ſerves to furniſh the City.

As to the Inhabitants, they are for the moſt part Poor and uncleanly, and chiefly Eaters of Fruit, Herbs, and Roots with ſuch like meagre Fare, nor do they take any Pains to clean the Streets where the meaner Sort have their Habitation. Their Bread is very coarſe and high priz'd; and perhaps what has principally contributed to the Progreſs of the Plague among them, was the great Numbers of thoſe which Lodged together in the ſame Houſe, as I ſhall explain hereafter; when I have examin'd the State of *London*, when it ſuffer'd by the Plague in the Year 1665.

London,

London, at the time of the Plague, 1665 was, perhaps, as much crouded with People as I ſuppoſe *Marſeilles* to have been when the Plague begun; the Streets of *London* were, in the time of the Peſtilence, very narrow, and, as I am inform'd, unpaved for the moſt part; the Houſes by continu'd Jetts one Story above another, made them almoſt meet at the Garrets, ſo that the Air within the Streets was pent up, and had not a due Freedom of Paſſage, to purifie it ſelf as it ought; the Food of the People was then much leſs invigorating than in theſe Days; Foreign Drugs were but little in Uſe, and even *Canary* Wine was the higheſt Cordial the People would venture upon; for Brandy, ſome Spices, and hot ſpirituous Liquors were then not in Faſhion; and at that time Sea-Coal was hardly in Uſe, but their firing was of Wood; and, for the moſt part, Cheſtnut, which was then the chief Furniture of the Woods about *London*, and in ſuch Quantity, that the greateſt Efforts were made by the Proprietors, to prevent the Importation of *Newcaſtle*-Coal, which they repreſented as an unwholſome Firing, but, I ſuppoſe, principally, becauſe it would hinder the Sale of their Wood; for the generality of Men were (I imagine) as they are now, more for their own Intereſt than for the common Good.

The Year 1665 was the laſt that we can ſay the Plague raged in *London*, which might happen from the Deſtruction of the City by Fire, the following Year 1666, and beſides the Deſtroying the Eggs, or Seeds, of thoſe poiſonous Animals, that

were then in the ſtagnating Air, might likewiſe purifie that Air in ſuch a Manner, as to make it unfit for the Nuriſhment of others of the ſame Kind, which were ſwimming or driving in the Circumambient Air: And again, the Care that was taken to enlarge the Streets at their Rebuilding, and the keeping them clean after they were rebuilt, might greatly contribute to preſerve the Town from Peſtilence ever ſince.

But it was not only in the Year 1665 that the Plague raged in *London*, we have Accounts in the Bills of Mortality, of that dreadful Diſtemper in the Years 1592, 1603, 1625, 1630 and 1636, in which Years we may obſerve how many died Weekly of the Plague, and Remark how much more that Diſtemper raged in the hot Months, than in the others, and ſerve at the ſame time as a Memorandum to the Curious.

A TABLE

A *TABLE*, Shewing how many Died Weekly, as well of all Diſeaſes, as of the Plague, in the Years 1592, 1603, 1625, 1630, 1636; and the Year 1665.

Buried of all Diſeaſes in the Year 1592.

	Total	*Pla.*		*Total*	*Pla.*
March 17	230	3	Auguſt 11	1550	797
March 24	351	31	Auguſt 18	1532	651
March 31	219	29	Auguſt 25	1508	449
April 7	307	27	Septemb. 1	1490	507
April 14	203	33	Septemb 8	1210	563
April 21	290	37	Septem. 15	621	451
April 28	310	41	Septem. 22	629	349
May 5	350	29	Septem. 29	450	330
May 12	339	38	October 6	408	327
May 19	300	42	October 13	522	323
May 26	450	58	October 20	330	308
June 2	410	62	October 27	320	302
June 9	441	81	Novemb. 3	310	301
June 16	399	99	Novem. 10	309	209
June 23	401	108	Novem. 17	301	107
June 30	850	118	Novem. 24	321	93
July 7	1440	927	Decemb. 1	349	94
July 14	1510	893	Decemb. 8	331	86
July 21	1491	258	Decem. 15	329	71
July 28	1507	852	Decem. 22	386	39
Auguſt 4	1503	983			

The Total of all that have been buried is, 25886
Whereof of the Plague, 11503

Buried

Buried of all Diſeaſes in the Year 1603.

		Total	*Pla.*			*Total*	*Pla.*
March	17	108	3	July	21	1186	917
	24	60	2		28	1728	1396
	31	78	6	Auguſt	4	2256	1922
April	7	66	4		11	2077	1745
	14	79	4		18	3054	2713
	21	98	8		25	2853	2539
	28	109	10	Septemb.	1	3385	3035
May	5	90	11		8	3078	2724
	12	112	18		15	3129	2818
	19	122	22		22	2456	2195
	26	122	32		29	1961	1732
June	2	114	30	October	6	1831	1641
	9	131	43		13	1312	1149
	15	144	59		20	766	642
	23	182	72		27	625	508
	30	267	158	Novemb.	3	737	594
July	7	445	263		10	545	442
	14	612	424		17	384	251
					24	198	105
The Out Pa-				Decemb.	1	223	102
riſhes this					8	163	55
Week were					15	200	96
joined with					22	168	74
the City.							

The Total this Year is,	37294
Whereof of the Plague,	30561

Buried

Buried of all Diſeaſes in the Year 1625.

		Total	*Pla.*
March	17	262	4
	24	226	8
	31	243	11
April	7	239	10
	14	256	24
	21	230	25
	28	305	26
May	5	292	30
	12	232	45
	19	379	71
	26	401	78
June	2	395	69
	9	434	91
	16	510	161
	23	640	239
	30	942	390
July	7	1222	593
	14	1781	1004
	21	2850	1819
	28	3583	2471
Auguſt	4	4517	3659
	11	4855	4115
	18	5205	4463
	25	4841	4218
September	1	3897	3344
	8	3157	2550
	15	2148	1612
	22	1994	1551
	29	1236	852
October	6	833	538
	13	815	511
	20	651	331
	27	375	134
November	3	257	89
	10	319	92
	17	274	48
	24	231	27
December	1	190	15
	8	181	15
	15	168	6
	22	157	1

The Total this Year is,	51758
Whereof of the Plague,	35403

Buried

Buried of all Diſeaſes in the Year 1630.

		Total	*Pla.*			*Total*	*Pla.*
June	24	205	19		23	274	57
July	1	209	25		30	269	56
	8	217	43	October	7	236	66
	15	250	50		14	261	73
	22	229	40		21	248	60
	29	279	77		28	214	34
Auguſt	5	250	56	November	4	242	29
	12	246	65		11	215	29
	19	269	54		18	200	18
	26	270	67		25	226	7
September	2	230	66	December	2	221	20
	9	259	63		9	198	19
	16	264	68		16	212	5

Buried in the 97 Pariſhes within the Walls,	2696
Whereof of the Plague,	190
Buried in the 16 Pariſhes without the Walls,	4813
Whereof of the Plague,	603
Buried in the 9 Out-Pariſhes in *Middleſex* and *Surrey*, and at the *Peſt-houſe*,	3045
Whereof of the Plague,	524
Buried in *Weſtminſter*,	566
Whereof of the Plague,	31

The Total of all the Burials this time,	10545
Whereof of the Plague,	1317

Buried

Buried of all Diſeaſes in the Year 1636.

		Total	*Pla.*
April	7	119	2
	14	205	4
This Week theſe Pariſhes were added: St. Margaret Weſtminſter, Lambeth *Pariſh, St.* Mary Newington, Redriff *Pariſh, St.* Mary Iſlington, Stepney *and* Hackney *Pariſhes.*			
April	21	285	14
	28	259	17
May	5	251	10
	12	308	55
	19	299	35
	26	330	62
June	2	339	77
	9	345	87
	16	381	103
	23	304	179
	30	352	104
July	7	215	81
	14	372	104
	21	365	120
	28	423	151
Auguſt	4	491	206
	11	538	283
	18	638	321
	25	787	429
Septemb.	1	1011	638
	8	1069	650
	15	1306	865
	22	1229	775
	29	1403	928
October	6	1405	921
	13	1302	792
	20	1002	555
	27	900	458
November	3	1300	838
	10	1104	715
	17	950	573
	24	857	476
December	1	614	321
	8	459	167
	15	385	85

The Total of the Burials this Year, is	23359
Whereof of the Plague,	10400

Buried

Buried of all Diſeaſes in the Year 1665.

		Total	Pla.
Decemb.	27	291	
January	3	349	
	10	394	
	17	415	
	24	474	
	31	409	
February	7	393	
	14	461	1
	21	393	
	28	396	
March	7	441	
	14	433	
	21	365	
	28	353	
April	4	344	
	11	382	
	18	344	
	25	390	2
May	2	388	
	9	347	9
	16	353	3
	23	385	14
	30	399	17
June	6	405	43
	13	558	112
	20	611	168
	27	684	267
July	4	1006	470
	11	1268	725
	18	1761	1089
	25	2785	1845
Auguſt	1	3014	2010
	8	4030	2817
	15	5319	3880
	22	5568	4227
	29	7496	6102
September	5	8252	6978
	12	7690	6544
	19	8297	7165
	26	6460	5533
October	3		
	10		
	17		
	24		
	31		
November	7		
	14		

We

We may obſerve from hence, that the Months *July*, *Auguſt*, *September*, and *October*, the Plague was at the greateſt height, and even in thoſe Months, all other Diſtempers had greater Power over Human Bodies than in the others. When I conſider this, I cannot help taking Notice, that in thoſe Months we have our chief Fruit Seaſons, and when it happens that there has been a Blight in the Spring, or the Summer has not given our Fruit due Maturity, I ſuppoſe that the Habit of the Body is ſo diſpoſed as to receive Infection more readily, than in Years that either afford us little, or elſe very Ripe Fruit.

Again, in thoſe warm Months, I find that we have vaſt Varieties of the ſmaller kinds of Inſects floating in the Air, and it is a thing conſtant, that every Inſect from the greateſt to the ſmalleſt has its proper *Nidus* to hatch and perfect it ſelf in, and is led thither by certain Effluvia which ariſe from that Body which is in a right State for the preſervation of it. In the Blight of Trees we find, ſuch Inſects as are appointed to deſtroy a Cherry Tree, will not injure a Tree of another Kind, and again, unleſs the Leaves of ſome Trees are bruiſed by Hail, or otherwiſe Diſtemper'd, no Inſect will invade them; ſo in Animals it may be, that by ill Diet the Habit of their Body may be ſo altered, that their very Breath may entice thoſe poiſonous Inſects to follow their

way, 'till they can lodge themſelves in the Stomach of the Animal, and thereby occaſion Death. We may likewiſe ſuppoſe that where theſe Inſects have met with their appointed Neſts, they will certainly lay their Eggs there, which the Breath of the diſeaſed Perſon will fling out in Parcels, as he has occaſion to Reſpire; ſo that the Infection may be communicated to a ſtander-by, or elſe, through their extraordinary ſmallneſs, may be convey'd by the Air to ſome Diſtance.

It is obſervable, that all Inſects are ſo much quicker in paſſing through their ſeveral Stages to the ſtate of Perfection, as they are ſmaller, and the ſmalleſt of them are more numerous in their Increaſe than the others.

Two Years ago when the Plague was at *Amiens*, I paſs'd by that Place, and then found the Contagion began to abate ('twas then about *October*, and the Rains began to fall) the People told me they were adviſed to eat Garlick every Morning to guard their Stomachs againſt Infection; but whether it was the Garlick, or the ſudden alteration of the Seaſon that was the occaſion of the decreaſe of that Diſtemper, we ſhall examine in another Place; but we may Note, That all the Ground about that City is a Moraſs, ſo that there is no coming near it but by the Roads, which are Paved and mark'd out. This Marſh or Moraſs, as all others do in the Summer Seaſon, produce vaſt Numbers of In-

ſects which are accounted unwholſome: But as ſome are of Opinion, it is rather a Noxious Vapour which occaſions this Infectious Diſtemper, I ſhall mention my Opinion of ſuch Vapours before I conclude.

In the Philoſophical Tranſactions, N° 8. *we have the following Obſervations of Inſects which are the Deſtroyers of Plants.*

Some Years ſince there was ſuch a ſwarm of a certain ſort of Inſect in *New-England*, that for the ſpace of 200 Miles they poiſoned and deſtroyed all the Trees of the Country; there being found innumerable little Holes in the Ground, out of which thoſe Inſects broke forth in the Form of *Maggots*, which turn'd into *Flies* that had a kind of Sting, which they ſtuck into the Tree, and thereby envenom'd and killed it.

The like Plague is ſaid to happen frequently in the Country of the *Coſſacks* or *Ukrani*, where, in dry Summers, they are infeſted with ſwarms of *Locuſts*, driven thither by an *Eaſt*, or *South-Eaſt* Wind, that they darken the Air in the faireſt Weather, and devour all the Corn of that Country, laying their Eggs in Autumn, and then dying; but the Eggs, of which every one layeth two or three Hundred, hatching the next Spring, produce again ſuch a number of *Locuſts*, that then they do far more miſchief than before, unleſs Rains fall which kill both Eggs and Inſects, or un-

leſs a ſtrong *North* or *North-Weſt* Wind ariſe, which drives them into the *Euxine* Sea: And it is very natural to ſuppoſe, that if the Winds have this Power over the larger ſort of Inſects; *i. e.* of moving them from one Country to another, the ſmaller kinds, which are lighter than the Air it ſelf, may be interceptibly Convey'd as far as the Winds can reach.

Dr. Wincler, *Chief Phyſician of the Prince* Palatine, *gives us the following Account of the* Murrain *in* Switzerland, *and the Method of its Cure, in a Letter to Dr.* Slare, *F.R.S. Anno* 1682.

On the Borders of *Italy* a *Murrain* infeſted the Cattle which ſpread farther into *Switzerland*, the Territories of *Wirtemburg*, and over other Provinces, and made great deſtruction among them. The Contagion ſeem'd to propagate it ſelf in the form of a *Blue Miſt*, that fell upon thoſe Paſtures where the Cattle Grazed, inſomuch that Herds have returned home Sick, being very dull, forbearing their Food, moſt of them would die away in twenty four Hours. Upon diſſections were diſcovered large and corrupted Spleens, ſphacelous and corroded Tongues, ſome had *Angina Maligna's*. Thoſe Perſons that careleſly managed their Cattle without a due reſpect to their own Health, were themſelves Infected and Died away like their Beaſts.

Having

Having had timely Notice of this *Lues* from our Neighbours, we made ſuch Proviſion againſt the invading Diſeaſe, that very few of thoſe who were infected by the Murrain died. Some impute this Contagion to the Witchcraft of three *Capuchins* in *Switzerland*. But the more learned believe it to proceed from ſome *noxious Exhalations* thrown out of the Earth by three diſtinct Earthquakes perceived here and in our Neighbourhood in the Space of one Year.

The Method of Cure for the Cattle.

As ſoon as ever there was any ſuſpicion of the Contagion upon any one of the Herd, the Tongue of that Beaſt was carefully examined, and in caſe they found any Aptha or Bliſters whether White, Yellow, or Black, then they were obliged to rub, and ſcratch the Tongue with a Silver Inſtrument (being about the breadth and thickneſs of a Six-pence, but indented on the ſides, and having a Hole in the middle whereby it is faſtened to a Stick, or Handle,) 'till it Bleed, then they muſt wipe away the Blood with new unwaſhen Linnen. This done, a Lotion for the Tongue is uſed, made of *Salt* and good *Vinegar*.

The *Antidote* for the diſeaſed Cattle is thus deſcribed.

Take of *Soot*, *Gun-Powder*, *Brimſtone*, *Salt*, equal Parts, and as much Water as is neceſſary

to

to waſh it down, give a large Spoonful for a Doſe.

After which we have a further Account of the ſame Contagion by the ſame Hand.

——I lately received an Account of two ingenious Travellers, who aſſured me the Contagion had reached their Quarters on the Borders of *Poland*, having paſſed quite through *Germany*, and that the Method uſed in our Relation preſerved and cured their Cattle. They told me the Contagion was obſerved to make its Progreſs Dayly, ſpreading near two *German* Miles in twenty four Hours. This they ſay was certainly obſerved by many curious Perſons, that it continually, without intermiſſion, made progreſſive Voyages, and ſuffered no neighbouring Pariſh to eſcape; ſo that it did not at the ſame time infect Places at great diſtances. They added, that Cattle ſecured at Rack and Manger, were equally infected with thoſe in the Field. It were worth the conſidering, whether this Infection is not carried on by ſome volatile Inſect, that is able to make only ſuch ſhort flights as may amount to ſuch Computations: For the account of the Ancients concerning the grand *peſtilential Contagions*, is very little ſatisfactory to this Age, who derive it from a blind Putrefaction, from the incantations of ill Men, or from the conjunction of inauſpicious Planets.

The

The following Account we have from Dr. *Bernard Ramizzini*, concerning the Contagion among the Black Cattle about *Padua*, Tranſlated from *Acta Erudit.*

In the Year 1712 a dreadful and violent Contagion ſeiz'd the *Black Cattle*, which, like an increaſing Fire, could neither be extinguiſh'd nor ſtopt by any Human means.

This Firſt was obſerv'd in *Agro Vincentino*, and Diſcover'd it ſelf more openly in the Country, ſpreading every way, even to the very Suburbs of *Padua*, with a cruel Deſtruction of the Cows and Oxen. It was alſo in *Germany*, in many Places; and is not yet wholly conquer'd.

Of this Diſtemper, Dr. *Ramazzini* made a particular Diſſertation; in which he inquir'd into the Cauſes of the Diſtemper, and what Remedies might be us'd, to put a ſtop to its violent Courſe.

It is evident, that this Diſtemper in Cows and Oxen was a true Fever, from the coldneſs of the Cattle at firſt, which was ſoon ſucceeded by a violent burning, with a quick Pulſe. That this Fever was peſtilential, its concomitant Symptoms plainly ſhow, as difficulty of breathing, a Drowzineſs at the beginning; a continued Flux of a nauſeous Matter from the Noſe and Mouth, fetid Dung, ſometimes with Blood, Puſtules breaking out over the whole Body on the fifth or

ſixth

ſixth Day, like the *Small-Pox*; they generally dyed about the fifth or ſeventh Day.

The Author tells us, that out of a great Drove, ſuch as the Merchants bring yearly into *Italy* out of *Dalmatia* and the bordering Countries, one Beaſt happen'd to ſtraggle from the reſt, and be left behind; which a Cowherd brought to a Farm belonging to the Count *Borromeo*: This Beaſt infected all the Cows and Oxen of the Place where he was taken in, with the ſame Diſtemper he labour'd under; the Beaſt it ſelf dying in a few Days, as did all the reſt, except one only, who had a Rowel put into his Neck.

'Tis no ſtrange thing therefore, if from the Effluvia, proceeding from the ſick and dead Cattle, and from the Cow-Houſes and Paſtures where they were fed, and perhaps from the Cloaths of the Cowherds themſelves, this Infection falling upon a proper Subject, ſhould diffuſe it ſelf ſo largely. When therefore this ſubtile *venomous Exhalation* happens to meet with any of the Cow-kind, joining it ſelf with the ſerous Juices and Animal Spirits, 'tis no wonder it ſhould diſorder the natural Conſiſtence of the Blood, and corrupt the Ferments of the Viſcera; whence it follows, that the natural Functions of the Viſcera are vitiated, and the requiſite Secretions ſtopt. For

Dr. *Ramazzini* not only ſuppoſes, but aſſerts, that a Poiſon of this kind, rather fixes and coagulates, than diſſolves the Blood: For beſide

beſide the forementioned Symptoms accompanying the Diſeaſe, the Eye it ſelf is a Witneſs; ſince the dead Carcaſes being open'd while they are yet hot, little or no Blood runs out; thoſe Animals having naturally a thick Blood, eſpecially when the Fever has continued ſo many Days. And he adds, that whether this Plague came firſt from the Foreign Beaſt, or any other way, it only had its Effect upon ſome Animal, in which there was the morbid Seminary or Ground prepared for it.

In the dead Bodies of all the Cattle, it was particularly obſerv'd, that in the Omaſus, or Paunch, there was found a hard compact Body, firmly adhering to the Coats of the Ventricle, of a large Bulk, and an intolerable Smell: In other Parts, as in the Brain, Lungs, &c. were ſeveral Hydatides, and large Bladders fill'd only with Wind, which being open'd, gave a diſagreeable Stink: there were alſo Ulcers at the Root of the Tongue; and Bladders fill'd with a Serum on the ſides of it. This hard and compact Body, like Chalk, in the Omaſus, the Author takes to be the firſt Product of the contagious Miaſma. He adds a Prognoſtick, believing that from ſo many Attempts and Experiments, and the Method obſerv'd in the Cure of this Venom, at laſt a true and ſpecifick Remedy will be found out to extirpate the poiſonous Malignity wholly: He alſo expects ſome mitigation of it, from the approaching Winter and North Winds. He does not

think this Contagion can affect Human Bodies, since even other Species of ruminating Animals, symbolizing with the Cow-kind, are yet untouch'd by it; nor was the Infection taken by the Air, after the dead Bodies had been carefully Buryed.

As for the Cure of it: From the Chirurgical part, he commends *Bleeding*, burning on both sides the Neck with a broad red-hot Iron, making Holes in the Ears with a round Iron, and putting the Root Hellebore in the Hole, a *Rowel* or *Seton* under the *Chin*, in the *Dew-laps*; he also orders the *Tongue* and *Palate* to be often wash'd and rub'd with *Vinegar* and *Salt*.

He recommends the Use of *Alexipharmicks*, and specifick Cordials; and three Ounces of Jesuits Bark, infus'd in ten or twelve Pints of Cordial Water or small Wine, to be given in four or five Doses; which is to be done in the beginning of the Fever, when the Beast begins to be Sick. Or else two Drams of *Sperma-Cæti* dissolv'd in warm Wine. Again he prescribes *Antimonium Diaphoreticum*. Against Worms breeding, an Infusion of Quicksilver, or *Petroleum* and Milk is to be given. And lastly, as to the Food, he directs Drinks made with Barley or Wheat Flower or Bread, like a *Ptisane*, fresh sweet Hay made in *May* and macerated in fair Water. In the mean time the Cattle must be kept in a warm Place, and Cloath'd, daily making Fumigations in the Cow-Houses with Juniper

Juniper Berries, Galbanum, and the like. As to Prevention, he enjoyns Care in cleaning the Stalls, and ſcraping the Cruſt off from the Wall; Care alſo is to be taken of their Food, the Hay and Straw not ſpoil'd by Rain in the Making; and he judges their Food ought to be but ſparing: He likewiſe recommends currying, with a Comb and Bruſh; with Setons under their Chin, made with a hot Iron run through the Part, and kept open with a Rope put through it.

After which we have the Receipt: Or the Ingredients of a Medicine for the ſpeedy Cure of that mortal Diſtemper amongſt Cows; ſent over from *Holland*, where a like Diſtemper raged among the Black Cattel.

Recipe Veronicæ, Pulmonariæ, Hyſſopi, Scordii, ana M. iv. *Rad. Ariſtolohiæ rotundæ, Gentianæ, Angelicæ, Petaſitidis, Tormentillæ, Carlinæ, ana unc.* 12. *Bac. Lauri & Juniperi, ana unc.* 12. *Miſc. fiat Pulvis.*

Bleed the Cow, and give her three or 4 Mornings ſucceſſively, an Ounce of this Powder, with a Horn, in warm Beer.

If the Cow continues Diſtemper'd, after the Omiſſion 2 or 3 Days, repeat the Medicine for 3 or 4 Days again.

I cannot help taking Notice likewiſe of the raging Diſtemper which was among the Cows about *London*, *Anno* 1714. it was ſo Violent and Infectious, that if *one* had it, all

others that came within Scent of her, or even eat where ſhe Grazed, were ſurely infected; it ſeized their Heads, and was attended with running at the Noſe, and a very nauſeous Breath, which killed them in three or four Days. The Herdſmen would not allow it to be the *Murrain*, nor could give any Account from whence it did proceed, or could find out any Remedy againſt it; they only tell us the unuſual dry Summer, and the continued *Eaſt*-Winds, were the occaſion of it. This Diſtemper had been for two or three Years before it came to us, in *Lombardy*, *Holland*, and *Hambrough*, to the Loſs almoſt of all their Cattle. The States of *Holland* cauſed a Medicine to be publiſhed for the Good of thoſe who had their Cattle thus Diſtemper'd; but having been try'd here, 'twould not Cure one in ſeven, but rather increaſed the Infection by keeping the diſtemper'd Cattle longer alive (by ſome Days) than they would have been without it. 'Tis remarkable, that no Oxen had this Diſtemper, but only *Milch-Cows*, which were more tender than the *Males*. The Herdſmen to keep their Cattle from the Infection, let them Blood in the Tail, and rubb'd their Noſes and Chaps with *Tar*; and when any happened to die of it, they were burnt, and buried deep under Ground. It began at *Iſlington*, ſpreading it ſelf over many Places in *Middleſex* and in *Eſſex*, but did not reach ſo far *Weſtward* from *London* as twenty Miles. The

The moſt general Opinion concerning the Cauſe of this Diſtemper, was, that the Cattle were firſt infected by drinking ſome unwholeſome ſtanding Water, where 'tis probable ſome Poiſonous Inſects were lodged and bred; the Summer having been extreamly dry, attended almoſt conſtantly with *Eaſterly* Winds, the Graſs almoſt burnt up, and the Herbs of the Gardens deſtroyed by Inſects; but ſuch as they were, (unfit for Table Uſe) were given to the Cattle. There was likewiſe ſo great want of Water, that many were forced to drive their Cows five or ſix Miles to it.

The Electuary publiſh'd upon this Occaſion by the States of *Holland*, was compos'd of moſt, if not all the Drugs uſed in the moſt ſerviceable Medicines that were made uſe of againſt the Plague among Men; moſt of which Ingredients we know to be mortal to Inſects, as ſtrong ſcented Roots and Herbs; but above all, Aromatick Gums and Saps of Plants; as Rhue, Garlick, Pitch, Tar, Frankincenſe and Olibanum. Theſe Ingredients are much uſed in *France* and *Italy* to prevent or deſtroy Infection, by burning them and ſmoaking ſuch Bodies, Letters, or any other things as are brought from infected Places, after they have made *Quarantain*, and are not ſuffered to come on Shore 'till they have undergone this Operation.

It is not againſt Experience, that Inſects can live and encreaſe in Animal Bodies: How often do we find Men, Women and Children troubled with Worms? What Varieties of thoſe Inſects are often voided by them? And how ſhould that be, if they were not either ſuck'd into the Stomach with the Breath, or taken into it with ſome unwholeſome Food? For they cannot breed in ſuch Bodies from nothing, without either their Eggs or themſelves are brought thither by ſome Accident: For if they were the natural Produce of Animal Bodies, they would then be alike common to all, which we know they are not.

I have been informed, that in the Year 1714, when this Mortality among the Cows was at its height, that towards the End of the Summer, ſome Farmers brought in freſh Cattel, and turning them into the ſame Fields, where many Cows had died before, they took the Infection and died likewiſe; but the following Spring thoſe Fields were void of Infection, and the *Cows* that were put into them did very well, but what were then put into the *Cow-Houſes*, where the ſick *Cows* had been the Year before, were ſeiz'd with the Diſtemper, and died; which ſeems to inform us, that it was the Effect of *Inſects*, which thro' the Warmth of thoſe Stalls were preſerv'd from the Severity of the Winter's Froſt; but ſuch as were left in the open Fields were de-

deſtroy'd by the Cold. I have heard that a Woman about *Camberwell* cured Six in Seven of her *Cows*, by giving them once a Week an Infuſion of *Rhue* and *Ale-wort*.

But it may be ask'd, why theſe infectious Diſtempers, ſubject to Men, Cattle and Plants, are not univerſal? And why the Plague ſhould not be as well in *India*, *China*, the South Parts of *Africa* and *America*, as in theſe Parts of the World? (For I do not find it has ever been in thoſe Places.) This Query gives me a farther Opportunity to ſuggeſt, that Inſects are the Cauſe of it, and that they are brought with the Eaſterly Winds. In the firſt place, ſo far as I can learn, there is not naturally in *America* any one Kind of Creature or Inſect that is found in any other Part of the World, and the Plants likewiſe are all different from thoſe of other Countries; as it is the ſame in *India*, *China*, &c. whoſe Products are quite different from what we find elſewhere. Suppoſing then that theſe peſtiferous Inſects are only the Produce of *Tartary*, let us conſider to what Parts of the World they may be carry'd from thence with the Eaſterly Winds; and whether *India*, *China*, the South of *Africa* and *America*, are not beyond their Reach, or can reaſonably be affected by them.

Whoever conſiders the Diſpoſition of the Land and Water in the Globe, may thus account for the Paſſage of theſe Inſects, with

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an Easterly Wind from *Tartary*, to all the Parts of *Europe*, *Asia-Minor*, *Palestine*, *Barbary*, and other South Coasts of the *Mediterranean Sea*, whither, 'tis highly probable, they may come, without meeting any thing in their Way to obstruct their Course.

The best Maps do not lay down any Mountains of Note betwen *Tartary* and the places which have been subject to the Plague: The *Alps* run parallel with the Winds coming from *Tartary*, and therefore does not any Way hinder their Passage: The Mountains of *Dalmatia* are not high enough to prevent the Passage; or if they were, the *Caspian Sea* is sufficiently large to let them pass to the South Parts of *Europe*, the *Mediterranean Sea*, and the North Coasts of *Africa*, even to their most Western Bounds.

Now it may be expected, perhaps, by some, that these Winds should yet continue their Progress as far as *America*; but as yet, so far as I can learn, these Land-Winds, when they have blown with the greatest Force, and have been of the longest Continuance, have not reach'd farther than about three hundred Leagues beyond the Western Coasts of *Europe*, which is a Trifle in Comparison of the vast Ocean between us and *America*: Besides, it is my Opinion, that the Winds which blow over so vast a Tract of Land, as these *Tartarian* Winds must do, that I suppose convey and support the pestiferous Insects, are of so different

different a Nature from the Winds coming from the Ocean, that 'tis likely thoſe Creatures which would ſubſiſt in the one, would be deſtroy'd by the other: So that if I am right in this Conjecture, *America* cannot be ſubject to the Plague.

Mount-Atlas, which is a vaſt Ridge of Mountains, running from the Ocean almoſt as far as *Egypt*, and are back'd with the Deſarts of *Lybia*, may very likely obſtruct the Paſſage of theſe Inſects to the South of *Africa*; and for that Reaſon, perhaps, ſecure that part of the World from Plagues. So likewiſe *Mount-Caucaſus*, or *Ararat*, which is one of the higheſt Ridge of Mountains in the World, running from Eaſt to Weſt, thro' *Perſia* and *India*, may ſecure the South Parts of thoſe Countries from the Plague, by ſtopping the Paſſage of thoſe infectious Creatures, if any Winds from *Tartary* ſhould happen to blow them that Way: And as *China* lies to the Eaſt of *Tartary*, ſo it muſt be Weſterly Winds which muſt infect that Country with the Plague, if it proceeds from what I imagine: But we do not yet find that Weſterly Winds are frequent in thoſe Parts; or if they are, we may be aſſur'd they cannot blow at the ſame time when the Inſects are hatch'd and carried the contrary Way by the Wind from *Tartary*. We are inform'd, that upon the Coaſt of *China*, the Winds are ſo regular, that from *October* to *March* they continu-

ally blow from the North-East, and from that Month to *October*, the direct contrary Way.

And Plants are no less subject to be destroy'd by Insects, than Men and Quadrupedes, is I have explain'd in the Chapter of Blights, in my *New Improvements of Planting and Gardening*.

Plants of all degrees are subject to Blights, which are so variously communicated to them, that sometimes a whole Tree will perish by that Distemper; now and then a few Leaves, or Blossoms only, and perhaps a Branch or two, will be shrivel'd, or scorch'd by it, and the rest remain green and flourishing. I have yet never observ'd this Disease to happen among Plants, but upon the blowing of sharp and clear *Easterly* Winds, which are most frequent in *England* about *March*; but sometimes happen in other Months. It is very observable, that the *Caterpillars* generally attend these Winds, chiefly infecting some one sort of Tree more than another, and even then not every where upon the kind of Tree they attack, but some particular Branches only; from which Observations I think we may draw the following Inferences, either that the Eggs of those Insects are brought to us by the *Easterly* Winds, or that the Temperature of the Air, when the *Easterly* Winds blow, is necessary to hatch those Creatures, supposing their Eggs were already laid upon those infected Parts of the Trees the preceding Year.

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The Blights which are attended with large *Worms* or *Caterpillars*, ſeem to be rather hatch'd with the *Eaſt* Wind, than that the Eggs of thoſe Creatures are brought along with it; but thoſe Blights which produce only thoſe ſmall Inſects which occaſion the curling of the Leaves of Trees, may proceed from Swarms of them, either hatch'd or in the Egg, which are brought with the Wind.

Some perhaps may object, that the *Eaſt* Wind is too cold to hatch theſe Creatures; how comes it then that we find them hatch'd when thoſe Winds reign? Or is it reaſonable to conjecture that the ſame degree of Heat is neceſſary to enliven an Inſect as is required to hatch the Egg of a Pullet? The Inſects of *Norway*, *Iceland*, and ſuch like cold Climes, muſt certainly have leſs Heat to produce them, than Creatures of the ſame Race muſt neceſſarily have in thoſe Climates which lye nearer to the Sun. Every Creature, without doubt, requires a different Period of Heat or Cold to enliven it, and put it in Motion, which is prov'd by ſo many known Inſtances, that I conceive there is no room for any diſpute upon that ſcore.

But there may yet be another Queſtion, *viz.* Whether it is not the *Eaſt* Wind of it ſelf that blights, without the help of *Inſects*? But that may be eaſily reſolved on my ſide; for that if it was the Wind alone that blighted, then every Plant in its way muſt unavoidably be infected with its Poiſon; whereas we find the con-

trary on a ſingle Branch it may be, or ſome other diſtinct Part of Plants.

And again, to ſhew how reaſonably we may conjecture that 'tis *Inſects* which thus infect the Trees, let us only conſider, that every *Inſect* has its proper *Plant*, or Tribe of *Plants*, which it naturally requires for its Nouriſhment, and will feed upon no other kind whatſoever: Therefore 'tis no wonder to ſee one particular ſort of Tree blighted, when all others eſcape; as for Example, that Wind which brings or hatches the *Caterpillars* upon the *Apple-Trees*, will not any way infect the *Pear*, *Plumb*, or *Cherry* with *Blights*, becauſe, were the Shoals of *Inſects* natural to the *Apple*, to light only upon thoſe other Trees mentioned, they would then want their proper Matrix to hatch in; or if they were hatch'd already, they would Periſh for want of their natural Food; ſo that 'tis morally impoſſible that all ſorts of Trees ſhould be blighted at the ſame time, unleſs the Eggs of every kind of *Inſect*, natural to each Tree, could be brought at one time with the Wind, or that an Eaſterly Wind could contain in it at once, as many differing Periods of Cold or Heat, as would be requir'd to hatch and maintain each differing kind of thoſe Creatures.

The common People in the Country ſeem to be of my Opinion, that Blights are brought by the Eaſt Winds, which they are ſo well ſatisfied brings or hatches the *Caterpillar*, that to prevent the too great Progreſs of Blights, it

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is common for them when the Eaſt Winds blow, to provide large Heaps of Weeds, Chaff, and other combuſtible Matter on the Windſide of their Orchards, and ſet them on Fire, that the Smoak may poiſon either the *Inſects* or their Eggs, as they are paſs'd along. By this Contrivance I have often known large Orchards preſerv'd, when the neighbouring Parts have ſuffer'd to the Loſs of all their Fruit.

And I have alſo ſeen theſe Fires made with good Succeſs to deſtroy the *Caterpillars*, even after they were hatch'd, and had began to devour the Trees, by ſuffocating them, and forcing them to drop to the Ground, where they have been ſwept up in large Quantities, and kill'd. I have heard it affirm'd by a Gentleman of Reputation, that *Pepper-Duſt*, being powder'd upon the *Bloſſoms* of any Tree, will preſerve them from Blights, which may be, becauſe *Pepper* is ſaid to be preſent Death to every Creature but to Mankind. Now altho' this laſt Secret is too coſtly for common Uſe, yet it may be of Service in ſome particular Place for the Tryal of a new Tree, where a Taſte of the Fruit is deſired, and beſides it helps to inform us, that Blights are occaſion'd by Inſects, or their Eggs, lodging upon a Plant, and that *Pepper Duſt* will not ſuffer them either to live, or to be hatch'd.

Another Remark (which to me is Demonſtration) that Blights proceed from *Inſects*, or their Eggs (being brought with the Eaſterly Winds) was the total Deſtruction of the *Tur-*

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neps, *Ann.* 1716, on the Weſt Side of *London*; about *October* we had dry Eaſterly Winds for a Week or ten Days, and ſeveral thouſand Acres of *Turneps*, which were then well grown, turn'd Yellow and decay'd, unleſs in ſuch Places only as were ſhelter'd by Hedges, Houſes, or Trees, where they remain'd Green 'till the *Inſects*, which came with the Wind, in about a Week's Time, deſtroy'd thoſe alſo. Some Farmers imagin'd that the Birds which were there in great Flocks, had eaten the Leaves of their *Turneps*, and contriv'd all Means poſſible to deſtroy them, 'till I convinc'd them that the Birds were rather Friends than Enemies, and came there to feed upon the *Caterpillars*, which were in ſuch great Numbers, that each *Turnep-plant* had not leſs than a Thouſand upon it; and that *Inſects* frequently paſs in Clouds and numberleſs Armies after this manner, is plain from ſeveral Inſtances, which have happen'd in my Time, and one of them (I think in *June*, *Ann.* 1717) paſſing over *London* were ſuffocated (I ſuppoſe) with the Smoak of the Sea-Coal, and drop'd down in the Streets, inſomuch that a ſquare Court belonging to the *Royal Society* was almoſt cover'd with them; theſe were of the *Fly Kind*, and fully perfected.

It may be asked, perhaps, how theſe *Inſects* came to deſtroy the *Turneps* only, and not touch the other Greens of the Fields, as *Cabbages*, *Carrots*, *Parſnips*, and the like? Every Herb has its peculiar *Inſect*, like the Trees I have

have mention'd: Nay more than this, the *Inſects* which Nature hath deſign'd to prey upon the Flower of a Plant, will not eat the Leaves, or any other Part of the ſame Plant. The Leaves of Plants have their *Inſects* natural to them, the Bark, and Wood likewiſe have their reſpective Devourers; and thoſe ſeveral *Inſects* have other Kinds, which lay their Eggs, and feed upon them.

I could yet give a much larger Account of Animals and Plants, how they have been particularly Infected, but I rather chooſe to refer my Reader to the Chapter at large, of *Blights* and *Plagues*, in my *New Improvements of Planting and Gardening*, &c.

By the foregoing Accounts we may obſerve, that *Mankind*, *Quadrupedes* and *Plants* ſeem to be infected in the ſame manner, by unwholſome *Inſects*; only allowing this Difference, that the ſame *Inſect* which is poiſonous to Man, is not ſo to other Animals or Plants, and ſo on the contrary; we obſerve likewiſe, that Pepper which is of Uſe to Mankind, is poiſonous to other Creatures, and tho' a Man cannot eat of the *Cicuta*, or *Hemlock*, without prejudice, yet a *Cow* and ſome other Animals will eat it to their Advantage; and the *Manchaneſe* Apple, which is deadly Poiſon to almoſt every Creature, is eaten greedily by Goats, and which is ſtrange, the Milk of thoſe Goats is wholſome to Mankind. Again, we may remark that *Camphire* which may be taken at the Mouth by the Human Race, and is helpful in many

many Cases, will destroy *Insects*; for among the Curious who have Cabinets of Rarities, it is a common Practice to lay it in their Drawers and Cases, to destroy the smaller kind of *Insects*, which would otherwise devour their Collections.

The Smoaking of Tobacco is helpful to some Constitutions, but was the pure Leaf to be taken directly into the Stomach, it would Purge in a violent Manner, and the Oil of it as I am told is a deadly Poison; however it is to be remarked, that in the time of the last Plague in *London*, *Anno* 1665, that Distemper did not reach those who smoak'd Tobacco every Day, but particularly it was judged the best to smoak in a Morning. We have an Account of a famous Physician, who in the Pestilential time took every Morning a Cordial to guard his Stomach, and after that a Pipe or two before he went to visit his Patients; at the same time we are told, he had an Issue in his Arm, by which, when it begun to smart, he knew he had received some Infection, (as he says) and then had recourse to his Cordial and his Pipe, by this means only he preserved himself, as several others did at that time by the same Method. I suppose therefore, that the Smoak of Tobacco is noxious to these Venomous *Insects*, which I believe to be the Cause of the Plague, either by mixing it self with the Air and there destroying them, or else by provoking the Stomach to discharge it self of those Morbid Juices which would nourish and encourage them.

When

When I conſider that the dead Bodies of the miſerable People of *Marſeilles* were found full of *Inſects*, and that thoſe Worms could be no way ſo ſuddenly killed, as by putting Oil or Lemon Juice upon them, it brings to my Mind ſeveral Tryals I have made upon *Inſects* of various Kinds, in order to occaſion their ſpeedy Death. In theſe Experiments, I found that moſt of the larger Kinds would live ſome Minutes in Spirit of Wine and other ſpirituous Liquors, when they were forced into them, and that Oil immediately ſuffocated them, from whence I ſuppoſe, the Air, or Breath they draw, is exceeding fine and ſubtile, and that a thick Air conſiſts of too groſs Parts for them to breath, and that ſince Oil deſtroys the larger Kinds of them immediately, the Oleagenous Particles evaporating from ſuch Bodies as Oil, Pitch, Tar, *&c.* expanding themſelves, and mixing with the common Air, would render it too thick for the ſmaller Kinds to ſubſiſt in.

We obſerve likewiſe that all *Aromatick Herbs*, &c. were found uſeful in the time of the dreadful Peſtilence in 1665, which helps to confirm what I have juſt now related, for a ſingle Leaf of Roſemary contains at leaſt 500 little Bladders of Oily Juice, which by rubbing, break and afford that grateful Smell we find in that Plant, but in that as in all other *Aromatick Herbs*, was we to bruiſe the Leaves 'till all thoſe Bladders were broken, the recreating Smell would be loſt, and we ſhould find only remaining an earthy, diſagreeable Flavour,

ariſing from the common undigeſted Sap; ſo if we take the Leaves of Fifty ſeveral Kinds of Aromatick Plants, and after bruiſing them, make up diſtinctly the bruis'd Leaves of each into Balls, and dry them by the Sun, or otherwiſe, they will all afford the ſame Smell; for the breaking of thoſe Bladders, or Bliſters, which yield the different Smells (from the Eſſence they ſeverally contain) makes them loſe all their Spirit or Eſſence.

In the Culture of theſe Aromatick Herbs, ſuch as *Roſemary*, *Lavender*, *Thyme*, &c. we may remark, that they are never deſtroy'd by any *Inſect*, which may ſtill give us a further Proof of the Antipathy all *Inſects* have to them, for which Reaſon ſome People are uſed to ſmoak their Houſes with theſe Aromatick Herbs, but eſpecially where the Chambers or Rooms are ſmall and cloſe; and it has been proved, that the Burning of Aromatick Gums and Woods, have likewiſe been uſeful in purifying the Air in a Houſe, and preventing the ſpreading of Peſtilential Diſtempers.

In 1665 it was obſervable, that in *Alderman-bury*, and other Places, where there were large Ware-Houſes of Aromatick Druggs, the Infection did not reach; ſo that it ſeems where there is Quantity enough of ſuch Woods or Gums, as yield a ſtrong Smell, we have no Occaſion of burning them, the bare Effluvia riſing from a large Maſs, having the ſame Effect as burning a ſmall Quantity. As every one of theſe Druggs, or Gums, is more pungent or operative upon

upon the Organs of Smelling, ſo we may be aſſured, the Vapour proceeding from them fill a larger Space in the Air; but perhaps a Tun Weight of the ſtrongeſt Aromatick among them, in the Body or Maſs, will not purifie ſo much Air as half an Ounce of the ſame will do by burning; for the Smoak of a few Grains of *Tobacco*, when the Air is clear, will ſenſibly touch the Smell above forty Yards, tho' a Pound of the Herb unburnt will not affect the Smell above a Foot.

Theſe Obſervations may ſerve to inform us, that the burning of Aromaticks may help to keep the Air in an healthful State; but as Men of Buſineſs muſt often change their Station, and paſs thro' different Degrees and Tempers of Air, it is for that Reaſon, that Aromaticks, and ſtrong ſmelling Roots, Herbs, *&c.* are recommended to be taken into the Stomach. The Cordial which we call *Plague-water*, compos'd of Aromatick Herbs, has been uſed with Succeſs, as has alſo been Conſerves of *Rhue*, *&c.* and the Uſe of *Garlick* in the *Amiens* Diſtemper, particularly, is remarkable. To this I may likewiſe add a Relation I had lately from ſome Men of Quality concerning a *Plague*, which ſome Years ſince deſtroy'd a great part of the *French* Army: It was obſervable, that at that time the *Iriſh* Regiments in that Service were preſerv'd by rubbing their Bread every Morning with *Garlick*, which undoubtedly muſt taint their Breath for many Hours, and ſo regulate the Air about them, that the unwholſome *Inſects* could not approach them.

Upon this Occaſion, I cannot omit obſerving the extraordinary Remedy for deſtroying the Inſect call'd the *Wevil* in Corn or Malt, as it was communicated to me by the Learned Dr. *Bentley*, Maſter of Trinity College, *Cambridge*; that worthy Gentleman tells me, that the Herb *Parietaria*, or *Peletory of the Wall*, is a Sovereign Remedy againſt the *Wevil* in Corn or Malt; and according to the Information he has had, an Handful of that Plant being laid here and there in a Granary infected by thoſe Inſects, will infallibly deſtroy them in a Day or two; which Diſcovery is ſo uſeful, that I think it ought to be made as publick as poſſible, and in this place ſerves to confirm my Hypotheſis, That the Effluvia of ſome Plants are Deſtructive to Inſects.

In the next place I come to conſider, how much a certain Quantity of Air is requiſite to preſerve a ſingle Animal Body, and the Knowledge of that, is what I account one of the chief Preſervatives of Health. I have often been concern'd to find a Family of ſix or ſeven pinn'd up in a Room, that has not contain'd Air enough for the Maintenance of Health in one ſingle Perſon; but ſuch is the Hardſhip of our Poor in many Places, and is frequently the Occaſion of their Death.

We may eaſily conceive how this happens, if we examine the Caſe of the Diving Tub, how ſhort a while a Man can live it, without a Supply of freſh Air; the occaſion of which is, that when he has drawn in with his Breath,

all

all the Groſſer Parts from the Air enclos'd in the Tub, the reſt grows hot and ſuffocating, by being too much rarified.

From whence I ſuppoſe, a Room of Nine or Ten Foot Cube, will contain Air enough to keep a ſingle Man alive for one Day, but if two were to inhabit that Space for the ſame time, each would receive but half his Nouriſhment, and ſo both would be Sufferers; but a Room, perhaps, containing twice that Space, might well enough ſerve five People for a Day, ſuppoſing that all External Air was kept from Communication with ſuch a Room, during the time the People were in it; for, as I have obſerv'd, that Air has certain Nourſhing Qualities in it, for the Maintenance of Human Life; ſo when thoſe Nouriſhing Parts are imbibed, and drawn in by the Lungs, the Air is return'd and flung out as invalid, and cannot be of Uſe a ſecond Time to the ſame Perſon; an Example of which, we find very curiouſly demonſtrated by Mr. *Newyentyte*; he tells us, that in making this Experiment, he diſcover'd that the ſame Nouriſhing Quality in the Air, which is neceſſary to maintain Human Life, is alſo neceſſary to maintain Flame, which he proves thus:

A lighted Candle being ſet under a Bell, cloſely fix'd upon a Table, will burn perhaps a Minute or two in Proportion to the Quantity of Air pent up with the Candle in the Bell; but as ſoon as the Quality in that Air, which is neceſſary to feed the Flame, is exhauſted, the

the Candle goes out; this has been often try'd with the ſame Succeſs; and we find, that by letting into the Bell ſome freſh Air, a little before the Candle ſhould have gone out, it will ſtill continue burning: And then to ſhew that this Quality in the Air is the ſame which feeds the Life in Humane Bodies, it was try'd, whether the Air, returning from the Lungs, would not have the ſame Effect upon the Candle, as the External Air had before, but it had not, the Candle went out at its uſual Time: Thus, it ſeems, when we ſuck in Air for Breath, the Lungs takes what is neceſſary for the Nouriſhment of our Bodies, and returns back the reſt.

After this we may naturally conclude, that where the Rooms, or Houſes are ſmall, there ought to be frequent Admiſſions of the External Air, but eſpecially where thoſe Rooms or Houſes are too much crouded with People; and if it is ſuppoſed that the External Air is Infectious, the burning of *Aromaticks*, *Gums*, or *Herbs*, upon the letting in of freſh Air, is neceſſary.

From the foregoing Obſervations we may learn, that all Peſtilential Diſtempers, whether in Animals or Plants, are occaſion'd by poiſonous Inſects convey'd from Place to Place by the Air, and that by uncleanly Living and poor Diet, Humane and other Bodies are diſpoſed to receive ſuch *Inſects* into the Stomach and moſt noble Parts; while, on the other Hand, ſuch Bodies as are in full Strength, and are well

well guarded with Aromaticks, would reſiſt and drive them away, but chiefly how neceſſary it is to allow the Body a Freedom of Air, and how to correct it if it is Infected.

And I ſhall conclude with ſome Memorandums taken from the Papers of a learned Gentleman, who in the time of the late Plague in *London* was curious enough to make his Remarks upon the Signs of that Diſtemper, and the Method of its Cure.

He tells, the Plague proceeds firſt from a corrupted and unwholſome Air.

The Second, is putrified Humours, hot Blood, cauſed by breathing in ſuch corrupt Air; and if the Diet before were perverſe, it fills the Body with ſuperfluous Humours.

Concerning the common Fear of Infection, which makes many rich Men, which might and ought to maintain poor viſited People; and ſome Phyſicians likewiſe, whoſe Duty it is to adminiſter Phyſick to them, flee away, ſo that in time of great Infection we hear more cry out for want of Bread and neceſſary means, than for anguiſh of the Diſeaſe.

Hence alſo came that inhumane Cuſtom of ſhutting up of Houſes that are viſited with Peſtilence, dejecting their Spirits, and conſequently making way for the Diſeaſe, and taking Men from their Labour, which is a digeſter of Humours, and a preſerver of Health; and if the Diſeaſe be Infectious (as in their Opinion it is) it is plain Murder, to ſhut Men up in an infected and deſtroying Air.

But all Mens Bodies are not full of Humours; if they were, all would be infected.

After this I find the following Directions to prevent Infection. *Firſt*, To avoid the Fear of it, and ſupport the Spirits in the next place. *Secondly*, To keep the Body ſoluble, and to uſe the juice of *Lemmons* often. *Thirdly*, he recommends a Diet of quick Digeſtion, and to eat and drink moderately:

He

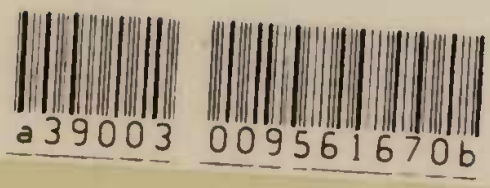
He prescribes likewise the Smell of Aromaticks, such as *Camphire*, *Styrax*, *Calamites*, Wood of *Aloes*, &c. and to be taken inwardly, *Mithridate*, *Angelica*, and *Petasetis*-Roots; and, in an express Manner, he recommends Cleanliness, and the Choice of a clear Air.

After Infection he tells us the Signs are an extraordinary inward Heat, a Difficulty of Breathing, a Pain and Heaviness in the Head, an Inclination to Sleep, frequent Vomiting, immoderate Thirst, a Dryness on the Tongue and Palate; but especially if we discover Risings or Swellings behind the Ears, in the Groin, or other tender Parts of the Body; but this last, where it happens, is of Advantage to the Patient; for he says, in such a Case, the Plague is rarely Mortal, for then Nature has Power to dispel the Venom, and drive it from the most noble Parts; and then he recommends Bleeding; but if Spots appear upon the Body, he advises the Use of *Emeticks*, and afterwards *Sudorificks*, which, by his Papers, we find he gave with good Success, but he decries the Use of Opiates at the Beginning of the Distemper.

He concludes with Directing of proper Cordials, to refresh and strengthen the Patient, such as *Confect. Hyacint. Confect. Alchermes*, *Pulv. Gasconiæ*, *Bezoar Orient.* and such like.

But my Worthy Friend, Sir *John Colebatch*, who has in other Cases declared himself for Publick Good, has, in this, likewise been Careful to provide against the Infection, and especially recommends to his Friends, to collect large Parcels of the Ripe *Ivy Berries* which are known from the others by their Blackness.

Thus have I given my Reader such a View of the *Plague* in general, as may point out to him its natural Cause, Progress of Infection, and the Methods that have been used by the Learned, to prevent the spreading that Terrible Distemper.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